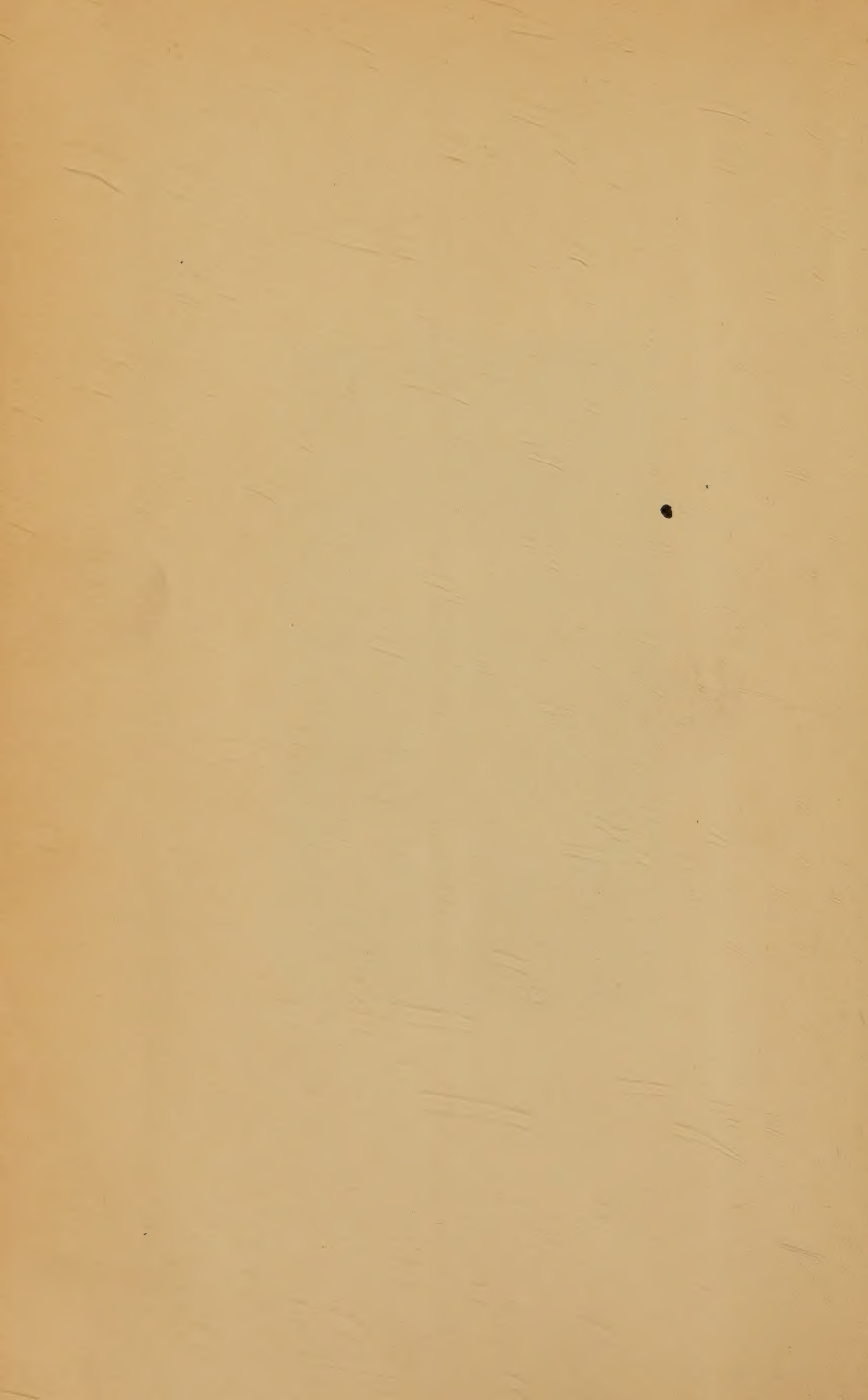
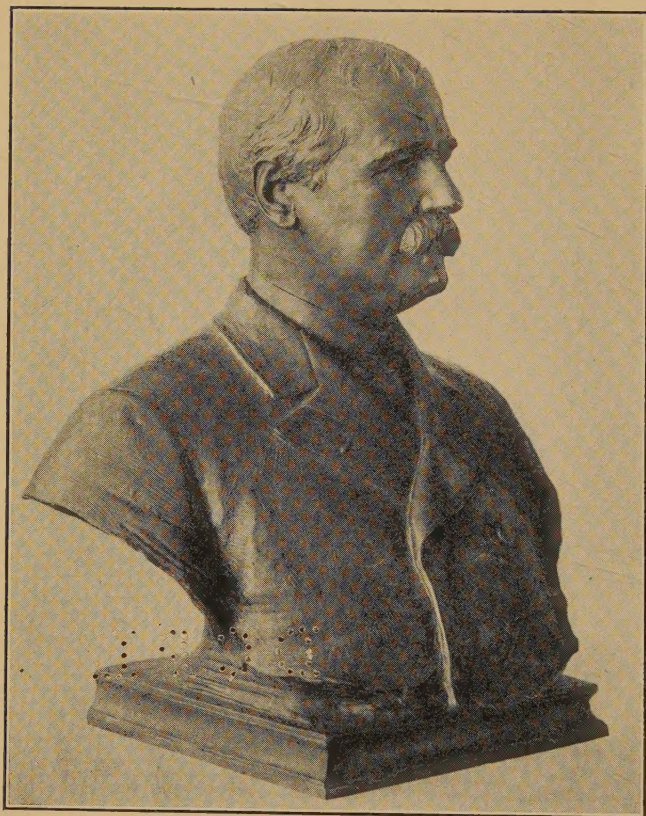


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Nathan S. Halbur

From the bust by Daniel Chester French; a gift from the
classes of '97, '98, '99 and 1900 to the Massachusetts
Institute of Technology

A Life of Francis Amasa Walker

By

JAMES PHINNEY MUNROE



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PREFACE

EXCEPT to the rapidly diminishing circle of what was an extraordinarily large group of friends, a life of Francis Amasa Walker prepared nearly a generation after his death can have little of that immediate, and usually somewhat fleeting, interest which attaches to contemporaneous biographies.

It was the belief of those closest to General Walker that neither popular acclaim nor family affection should be the determining factor in deciding, after his death, whether or not to publish a biography. Time, they maintained, should be the final arbiter; and, after twenty-five years, that unhasting and unresting judge has rendered unmistakable decision.

None will dispute that, at the end of that quarter of a century, Walker's fame is not only assured,—it is even more broadly established than at the time of his far too early death. His new departures in economics have become the settled highways of that science. The asperities which necessarily accompanied some of his controversies have wholly passed away. Most of the reforms in government, in education, in social administration for which he labored, not only have been accepted, but have measurably taken place. The Massachusetts Institute of Technology, which, even in 1897 was still regarded by many as a doubtful experiment, is now fully established, with its future certain. It is, indeed, the chief visible monument to the great career of its third President.

It is not in honor of Walker, therefore, that an esti-

mate of his career has at last been undertaken. This biography, inadequate though it be as a portrait, hopes to give proof, through so conspicuous an illustration, that the life which stands the test of time, the life whose influence widens and grows with each passing year, is that which was dedicated to unselfish and constructive service to mankind.

A volume which, like this, has awaited the decision of the years, finds itself, however, under a distinct disadvantage. Most of those contemporaries who might have given pertinent instances of General Walker's effective service, or who might have preserved memories of his brilliant conversation, have already passed his way. Much of the correspondence which, at the time of his death would have been available, has now disappeared. With conspicuous exceptions, the letters that herein appear are but the chance bits which have happened to survive. Precious though they are, they give only a hint of the wealth of that correspondence which is now unrecoverable.

A situation difficult in itself has been complicated by the fact that General Walker himself believed—and his family agreed—that a letter, when read and replied to, should be destroyed. Not a scrap of intimate correspondence was found among his own papers; only here and there have a few of his many letters to his family survived. As a consequence, a reader of the following pages cannot escape the impression that Walker wrote sparingly and to a limited group. Yet he was a prodigious letter-writer having, however, no pride in such correspondence, and convinced, on the contrary, that the product of this labor should be quickly, if not immediately, destroyed.

No letters of his, however, no words of the most competent biographer, could convey what was, after

all, the greatest service that General Walker gave. That service was one of personal influence, mainly through example, upon the lives of thousands of men, most of them younger than he, who came under his teaching or within the radius of his vitalizing personality. Through him they have been enabled, not only to shape their own lives more effectively, but to transmit to others, in ever widening circles, the lessons that they learned and the qualities that they acquired as they sat at Walker's feet. As one among the younger of those disciples, the biographer has esteemed it a high privilege to attempt to transmit to those who did not know him a portrait, though necessarily a most inadequate one, of a sound and virile thinker, a great, unselfish citizen, and a real, constructive leader of his fellow-men.

The debt to those who sent the comparatively few letters of General Walker's that are extant, and to those who made diligent, though fruitless, search for other such letters, is one that cannot be acknowledged individually, for the list would be too long. Without such help, however, the writing of the biography would have been quite impossible.

FRANCIS AMASA WALKER

CHAPTER I

THE FAMILY BACKGROUND

IT is a cardinal rule with many writers of fiction that, in order to seize the immediate attention of the reader, the leading character must be introduced at some peculiarly interesting moment, whether early or late in life, so that the story may be unfolded from that crucial point. A similar procedure is out of place in a biography; but were it desired to present Francis Amasa Walker at some arresting hour in his varied career, it would be difficult to choose among the many that would come to mind. Successively teacher, journalist, soldier, economist, public servant and college president, he made himself master of each of these exacting vocations and was conspicuously successful in all. Preëminently economist and educator, he nevertheless contributed notably to human progress in many other fields.

As teacher, administrator, and member of numerous bodies dealing with educational problems, he was largely responsible for many fundamental reforms. As soldier, newspaper man and publicist, he exhibited not only rare courage, but also that special wisdom which knows when, and when not, to temporize with a difficult situation. As economist, he was a questioner of tradition and a brilliant originator of fertile theories. As college executive, he was eminent among the great pioneers who are leading education out of inherited and, in many cases, outworn conventions towards new and effective ideals.

Conspicuous in everything that Walker undertook was his zeal in enlisting others, his prompt willingness to go forward himself, and his unflagging devotion to high aims. While honorably ambitious, he never permitted his conception of social well-being to be clouded by considerations of personal advantage. Like his father before him, he was the ideal public servant, markedly subordinating his individual comfort, when there was any conflict between them, to the welfare of society.

To understand Francis Amasa Walker's character and the motives underlying his varied lines of activity, it is essential to refer briefly to his ancestry and to review at some length his father's career; for from Amasa Walker he inherited directly his interest in political economy and his zeal for public service. He inherited, also, a fine and beautiful courtesy. It was justly stated in the *Outlook*, after the younger Walker's death:

In a way that is rare in the republic of thinkers, General Walker was the inheritor of his father's intellectual estate. . . . Amasa Walker, . . . educated in a New England school, became before his death a teacher of political economy to the economic professors of European universities. . . . Democratic in his sympathies, he championed in the world of letters the convictions of the common manhood of New England, and the soundness of his heart was the illuminator of his judgment on questions of social science. . . . General Walker's breadth of view and strength of human sympathies were his by inheritance.

In an appreciative estimate by Carroll D. Wright, this parallelism in the careers of father and son is again brought out:

It was natural that Francis Walker should at a very early age turn his attention to economic considerations.

In view of his familiarity with his father's life, and impressed by his strong, original and farseeing mind, it would have been strange if the keen, receptive qualities of the younger man were not affected. . . . His (Amasa's) fame was not confined to his own country, but was as wide as the study of political economy. . . . He helped to broaden, liberalize and emancipate the economic philosophy of his time. In politics and sociology he was equally advanced and progressive. . . . Starting out with this capital, as well as with a bent of his own, it would have been strange if Francis Walker had not followed in the footsteps of his father.

It is interesting to note that a second Francis Walker, son of Francis Amasa and grandson of Amasa, is also an economist.

Seldom have two men seemed more completely the direct product of their inheritance and environment than were Amasa Walker and his son Francis Amasa. They were the fine flowering of all that was superior and, in the best sense, peculiar in New England before the Civil War. Their ancestry was extraordinarily homogeneous. Almost all their forebears came over in the first great wave of English immigration before 1650, and there was afterwards little or no admixture from other than British stock.

Were one to trace the posterity of the one hundred and twenty-eight ancestors constituting the seventh generation preceding that of Francis Walker, it would be found that those more than six-score individuals produced much of the best New England material. From them are descended great numbers of physicians, teachers and other professional men, as well as persons eminent in politics and industry. Among those forebears themselves, however, were few of the outstanding figures of the seventeenth century: the clergymen, magistrates and large landed proprietors whose names

are most prominent in colonial history. Walker's ancestors were, as a rule, substantial yeomen who were both pioneers and builders. They were farmers, sailors and mechanics who lived sober and useful lives, and who sustained their full share of the work of government, both in their towns and in the legislatures. They seemed to have a special aptitude for developing new regions, for many, on reaching manhood, settled in communities other than those in which they had been born. These migrants usually remained, however, after their one transplanting, in the town of their choice.

A rather extraordinary number of Francis Walker's ancestors lived to great age, and the families of those octogenarians, unlike many early New England households, were not largely destroyed in childhood by devastating sickness. Selecting, rather at random, thirty-five persons from the fifth, sixth and seventh generations preceding Francis Walker's, it appears that their average age at death was exactly eighty years. This family longevity was due, presumably, to the fact that most of the ancestors lived out of doors and worked steadily with their hands, thus avoiding or overcoming the chief enemies of the early ministers and magistrates: a sad lack of fresh air and a formidable diet designed for strenuous laborers in the open.

Among the immigrant ancestors and those of the first and second generations thereafter should be noted the earliest Walker, Samuel, of Reading, who was a maltster and tavern keeper and one of the first among the selectmen in that part of Reading which was set off as Woburn; Nathaniel Walker, eleven of whose children averaged eighty-three years at death; Corporal John Brewer, a farmer of Sudbury; and Captain William Carpenter, also a farmer, who died in Reho-

both, which he represented in the General Court and of which he was town clerk. His will, made in 1659, mentions his Latin books, Greek grammar, Hebrew grammar and Greek lexicon. His son, John Carpenter, was a housewright and a captain in King Philip's war.

Among other early Walker ancestors were Edward Morris, a deputy to the General Court from Roxbury; Henry Ambrose, all his life a mariner; Nathaniel Eastman, a cooper; and Philip Eastman, presumably an artisan of some sort and also a soldier in King Philip's war. Job Tyler and his son, Moses, were "husbandmen," and the latter was prominent for a generation in the town and church affairs of Boxford, Massachusetts; while his son, Captain John, was "many years at Sea." Practically all those early ancestors were diligent men, active not only in their own, but also in civic and military affairs.

Coming down to a later period, Francis Walker's paternal great-grandfather, Phineas, son of Nathaniel and Submit (Brewer) Walker, was born in Weston, Massachusetts; early removed to Woodstock, Connecticut; marched in April, 1775, to the relief of Boston, being then a sergeant; was commissioned ensign in 1776 (Amasa Carpenter, maternal great-grandfather of Francis Walker, being captain of the same company at the same time); and later was made lieutenant. During the greater part of his revolutionary service, Phineas had as his superior officer, Samuel McClellan, great-grandfather of General George B. McClellan, with whom Francis Walker was so closely associated in the Civil War. Another notable great-grandfather was Robert Ambrose of Concord, New Hampshire, who married Mary Etheredge of Newburyport. His son, Stephen, Francis Walker's maternal grandfather, held various offices of trust, including that of representative

to the Legislature, was an ardent Whig, and a useful and enterprising citizen. The Eastmans, from whom General Walker was descended through two lines, were also a leading family in the Merrimac valley. It is pleasant to believe, and also probable, that George Eastman, to whom the Massachusetts Institute of Technology owes so much, was of the same stock.

Francis Walker's paternal grandfather was Walter, a blacksmith who, soon after the birth of Francis' father, removed from Woodstock, Connecticut, to Brookfield, Massachusetts, where he acquired, largely by his wife's good management, what for those days was an abundance. They were measurably able therefore to fulfil their joint desire to aid every one in their community who suffered from poverty or illness. By 1810, Walter Walker had accumulated seventy acres of good farming land, and, in that year, he built the best house then extant in the northern parish of Brookfield.

Walter Walker had three sons and one daughter, the eldest child being Amasa, whose public life, in many ways, was closely paralleled by that of his still more distinguished son. Amasa seems to have inherited the rather feeble constitution which his father, although following the rugged trade of a blacksmith, always had. His ill-health was induced, probably, by the fact that

he and his younger brothers, when not otherwise employed, spent much of their time in the house "sticking card teeth"; cards were manufactured in great quantities in Leicester, the leather and wire teeth being sent out all around the country to be "set." By this occupation, which required close confinement in a sitting, stooping position, the three boys, when eight, ten and twelve years old, respectively, could together earn seventy-five cents a week,

which went towards paying for the land, their clothing, etc.*

It is a reasonable surmise, borne out by his highly interesting commonplace books, that in his youth Amasa Walker laid out a definite program under which he was to acquire, early in life, a fortune ample enough to permit him to retire from business and to devote himself thereafter to the public service. Up to his thirtieth year, however, everything he undertook came to an untimely end. For this his uncertain health was in large part responsible. He notes in one of those books already referred to:

It was my constant fortune to be broken off from all my engagements during my youth by sickness. It then seemed to me that I was very unfortunate, but I now see that it was all for the best. Providence was leading me in a way I knew not, but which was for my best good. I got a great deal of excellent training and discipline by it. . . . I don't think I ever saw a day of perfect health in my life. Very ill as an infant, and from then always suffered from debility and disease. His mother [the alternation of the first and the third person is characteristic of that informal record] told him that before he was a year old he had taken his weight in loaf sugar in taking medicines. His constitution probably impaired by so much dosing. Believed he had originally a remarkably good constitution, and to that I am indebted under Providence for life.

Every time, however, that Amasa Walker found himself able to resume work, it was on a higher level of achievement and remuneration. Obligated, because of frequently recurring illness, to give up a projected college career, he regarded this, too, before he reached middle age, as providential. He then realized that he was better fitted for business than for the life of a

* From Amasa Walker's ms. autobiography.

scholar. That a college training could have any relation to a commercial career was, in those days, not even imagined. He seems especially to have had no regret that the inability to secure a higher education cut him off from the ministry, to which his able and ambitious mother had early dedicated him.

It is not necessary to recount the successive business ventures in Massachusetts into which Mr. Walker entered, first at Brookfield, then at Methuen, and finally at Boston. During the decade between his thirtieth and fortieth years, he was, despite continued ill-health, remarkably successful. At his retirement from industrial life, in 1840, it was said that he was the leading boot and shoe manufacturer in New England. His son writes of this phase of Amasa's career: *

The scale of his mercantile transactions had been very extensive, and he had done more to open the trade of Boston with the South and Southwest than any other merchant of his generation; but the large profits of his business had been, of course, greatly impaired by the almost total wreck of trade and industry in 1837 and 1839, so that Mr. Walker retired with only a moderate competence, sufficient, however, for all his needs.

During the two years subsequent to 1840, years spent largely in attempting to establish his health, and which included a sojourn in Florida, he took up with his accustomed zeal the study of political economy, then a rare avocation, especially in the United States. He made such progress in this new undertaking that, in 1842, he was called as professor of political economy, without salary, to Oberlin College, an institution which he had been instrumental in establishing and to which he had been a liberal contributor. From that time until his death in 1875, he was extremely active as a

* Memoir by Francis A. Walker.

lecturer, especially in the field of money and finance. He served with distinction in the Massachusetts Legislature and in the 1861-2 session of Congress; made three voyages to Europe to study economic conditions and promote international peace; * and, throughout this whole period, as well as in his earlier life, was ceaselessly concerned with the highly explosive issues of anti-slavery and temperance.

His political career was interesting and characteristic. This is his summary of it, considerably abbreviated and "translated" consistently into the first person:

Up to about 1829 or 1830, I acted with the National Republican, my father's party; was greatly taken with the idea of "protecting American industry"; Henry Clay an object of my great admiration; read eagerly everything I saw on that side.

Became convinced that Masonry was anti-republican and anti-Christian, a conviction that strengthened as I grew older. Joined Anti-Masonic party. Was secretary

* "New Britain, Ct., July 11/74.

DEAR FRIEND WALKER:

I hope you and your son Francis have concluded to go to Geneva [to the Peace Congress]. How glorious it would be for you and I to go once more abroad on this great mission! To see the old friends who remain, and to bear our united testimony to the cause after twenty-six years since our Paris Congress! For myself, I have made up my mind to go, and to sail on the 25th from Quebec, a shorter sea route, and a new direction. Our people intend to go up into Vermont for their summer vacation, so that I can accompany them to their stopping place.

I want to be in England a few weeks before the Congress, to look to my books, see friends and do some business which is important to me. I intend, if all be well, to be in Geneva a week before the meeting to help Mr. Miles in preparing for it. Now when will you sail, and where shall you go first? You will find *The Langham House* an American establishment, very commodious and comfortable. I hope you will make up one of your clear, strong practical speeches before you go, in order to have quiet for reflection.

Do write me soon.

Ever yours faithfully,
ELIHU BURRITT.

of the first meeting ever held in Boston on the subject of Masonry; received at different times two nominations from the Anti-Masonic party for Congress, 1st District, Boston. Opposed to all secret, oath-bound societies.

When the party came to an end, became a Democrat, being convinced that protection was a fallacy, "that free trade was the true interest of all nations." Had become convinced also that "a National Bank was a national curse." I did not then understand the philosophy of money, or the nature of a mixed currency, but I had seen the practical operation of the National Bank, and I regarded it as a great central despotism, dangerous to the liberties and injurious to the pecuniary interests of the people.

In joining the Democrats I ran counter to the course of a vast majority of my friends. Ran repeatedly as candidate of the party. Was in the zenith of my business and did not desire election, but knew that some one must represent the principles to which I was attached, and, moreover, there was no danger of my election.

Was tempted to leave the Democrats in 1840, but the question was "Bank or no bank," and I entered the campaign, not to advocate the election of Van Buren, for I never mentioned him, but to oppose the popular cry "that we must have a National Bank to regulate exchanges." I knew that was a stupendous falsehood, and how could I aid and abet it? Made my first speech of the campaign at Springfield, at the Democratic Convention. Received as a result numerous invitations, 75 to 100, to speak on the subject. Spoke in many places; brought on severe bronchial attack which lasted for many months. Kept up connection with the Democrats; nominated 1843 and 1844 to State Senate from Worcester County. In latter year, however, voted for candidate of the Liberal party, not because I belonged to it, but because I couldn't vote for any other candidate.

When the Texas question came up, went to Democratic State Convention at Worcester and offered strong anti-slavery resolution. . . . This caused immense excitement and violent opposition. Was with difficulty allowed to speak on the resolution; charged the Democratic party

with being false to its principles. This was my last appearance in any Democratic Convention. Not being able to act with liberty, took no part in politics until 1848, when the issue was presented: "Free soil for Free men. No more extension of slavery." Took part in campaign with my whole soul and with more heartfelt satisfaction than I had ever experienced before.

My fellow-townsmen elected me to Legislature, 1849. Had never before lived in community where majority were of party to which I belonged. For some twenty years I had been a candidate (what may be very properly perhaps called, a Martyr candidate) in every case without any solicitation on my part, and oftentimes without any knowledge of any intention to nominate me. Was the candidate of the Free Soil party (a minority) for Speaker of the House. At this election to Legislature also I was candidate for State Senator from Worcester County.

I have never changed my platform (Free Soil platform) at all, though I have acted and still do so with the Republican party. Elected Senator 1849, by coalition of Democrats and Free Soilers of Worcester County.

Elected by a coalition of the Democrats and Free Soilers in the Senate, as Secretary of State, 1851. Was intimate with Sumner and active in difficult election of latter to U. S. Senate in 1851.

Amasa Walker was by nature a promoter of great causes. Said the Springfield *Republican* of him:

One of the measures with which he was largely identified in state politics was the secret ballot, which was adopted at one time to secure the employees of mills from espionage at the polls. . . . He was one of the first to start the Boston Lyceum and to insist on the admission of women, against the advice of his friend, Dr. Lyman Beecher. Dr. Beecher, in fact, thought the lyceum would prove a failure, but "I will attach a locomotive to it, which will make it go," was the rejoinder, in the new railroad lingo of the time, and go it did, when women were admitted. One of the most important works in which Mr. Walker was ever engaged was the Western railroad, of which he was active promoter and early director. He was

one of a committee of directors in 1838 to investigate the manner of construction and administration, and was prominent in the early discussion as to the precise relationship of the railroad and the state.

At this time he made the—in the ears of his contemporaries—absurd prophecy that men would go by rail in five days from Boston to the Mississippi, sleeping and eating on the train.

It is to be noted, however, that Mr. Walker never degenerated into a professional reformer. He did not, as Judge Hoar is reported to have remarked concerning a well-known Boston woman, “bustle about with remedies for which she had not yet found the evils.” Amasa Walker was conspicuously hard-headed and sought always the normal avenues by which his cherished social gains might be attained. Like his son, he seldom failed to keep on the solid ground of practicality. This distinguishing characteristic of both these men enabled them to accomplish so much that was lasting and to achieve such solid fame.

A striking example of Amasa Walker's clear-headed common sense is given in his simple account of his encounter with Chase in the gold panic days of the Civil War:

A few days before the passage of the act of Congress to prevent the sale of gold, I called upon Mr. Chase, the Secretary of the Treasury. He appeared to be greatly distressed in regard to the condition of the public finances, looked careworn and haggard, as if overwhelmed by the anxieties of his position. After expressing in earnest terms his melancholy forebodings, he exclaimed with much emotion, “We must prevent the operations of the speculators in Gold. The Brokers are ruining the credit of the Government, they are running up the premium at a rapid rate and if we cannot put a stop to their movements the country is ruined. We must prevent their operations by

law, we must forbid the sale of gold, don't you think so?"

"No!" I replied, "that cannot be advantageously done. Such efforts have always failed in other countries and they will in this. The trouble is that when the sale is forbidden and the market price is no longer quoted, the public will not know what the true market value is, and the uncertainty will increase the premium to an indefinite extent and make the matter worse than it is now." We talked some time on the subject, and when I left he seemed satisfied of the impolicy of legislating upon the subject, but in a few days he sent a bill into the House of Representatives which became a law forbidding the sale of gold; and the consequence was that the premium advanced from 135 to 185½ in about ten days. As absolute ruin was certain, if the law was continued, the act was repealed and the premium went down immediately to the point where it was before the unwise measure was enacted.

Summing up his activities in those fields which drew his interest before he entered upon what he calls the "third and last division" of his life, "when I began to devote myself more especially to the subject of Political Economy and began lecturing in Amherst College," Amasa Walker writes:

In the Peace cause I began to take an interest about 1832 and from that period till 1862, 30 years, I spent more time and money in laboring to advance it than in any other reform movement. I had a deep sympathy for the cause, and there was more need of assistance in that, than in the more popular enterprises of the day so I gave more attention to it. My faith in its principles and my assurance of its final success is as great in 1869 as at any moment of my life.

I enlisted openly with Mr. Garrison in the anti-slavery movement when first commenced and lectured and wrote for 20 years as often as I had time and opportunity, never losing or abating my interest in the question until the final act of emancipation which took place while I was in Congress.

Mr. Walker not only preached, but practised; for he and his brother Freeman were leaders, in central Massachusetts, in the forwarding of runaway slaves, by "underground railway," to Canada and freedom. Amasa's house at Oberlin was also a "station" on that dangerous road. It should be noted, however, that he never embraced the views of the extremists in the anti-slavery crusade, emphasizing always the superiority of constitutional means.

One important result of the first of Amasa Walker's three visits to Europe is summarized in his manuscript reminiscences. His shrewd prophecy concerning the evils of the franking privilege has been more than justified; for the abuse of it has led to a monstrous waste of the tax-payers' money and to an overwhelming flood of congressional verbosity:

In 1843, I visited England for the first time. The cheap postal system had then but just gone into use. As I witnessed its operations I was greatly struck with it all. I used to tell Englishmen that it was the only one of all their institutions in which I had perfect complacence. I contrasted it with everything else in a country where monopoly and heavy taxation meet you at every step. And it contrasted, too, most wonderfully, with our own postage system at home, where we had 6-10-12½-18¾ and 25 cent rates, and a most clumsy, expensive and unsatisfactory postal establishment.

My mind was so much impressed with the excellence of Rowland Hill's admirable arrangements, that after I returned home, I wrote for a newspaper in Boston edited by Rev. Joshua Leavitt an article entitled "Two Cents Postage," in which I advocated as strongly as I could, the adoption of such a system in this country. It was published, and subsequently the Boston Anti-Slavery Society issued an edition of the article in a tract of four pages and gave it a wide circulation.

Subsequently I wrote a series of articles I think in the winter of 1843-4 which were published in the Boston Post.

These were subsequently printed in pamphlet form and distributed widely.

Soon after this, the matter was introduced with Congress and a partial reform effected.

Subsequently, the system now in use (1864) was established, under which we have gone on with a good deal of satisfaction.

But it is quite inferior and imperfect compared with that of England. There the Franking privilege is entirely abolished. Here we allow it, and while we do so, can never make the Department, what it should be, a self-supporting concern.

Indeed, if we would do away with all Franking and put a uniform rate of three cents through the nation, on letters of $\frac{1}{2}$ ounce and a low rate on newspapers, and introduce any tolerable degree of economy and honesty into the management of P. O. Department it would not only support itself but pay a revenue of some millions.

The want of patriotism and regard to the public which in Congress prevents the abolition of Franking is as melancholy as it is pernicious to the interests of the nation.

I do not know to a certainty that the Tract on Two Cent Postage was the first publication that appeared on the subject in this country, but I believe it was.

So many and various were Amasa Walker's interests in questions of reform that it would seem impossible for him to have avoided the tares which commonly spring up in fields so promiscuously sown. His Yankee shrewdness saved him from becoming the victim of every new enthusiast, and his remarkable soundness of judgment kept him always within the safe pathway of the practical. He followed the physiological teachings of the famous Dr. Graham, not because it was a fad, but because, by observing the rules of exercise and diet prescribed by that early apostle of healthful living, his feeble constitution was distinctly strengthened. He advocated drastic reforms in college instruction be-

cause, as a teacher at Oberlin and Amherst, he saw with his own eyes how little relation there was between the Greek and Latin which "must be studied whether he acquired anything else or not" and the "needed knowledge" which the graduate must have. He put total abstinence to practical test by persuading his father, so that Amasa could record with satisfaction that the father "and Walter had gone through haying without the use of spirit, and that they never got the hay so easily and were never so well."

With what generous good sense he solved the puzzle which confronted the anti-slavery advocates when all the churches and halls in Boston were closed against them! He writes in his reminiscences:

For several years after the anti-slavery agitation commenced it was quite difficult to get any place for meetings. The churches (in Boston especially) were hermetically sealed. I recollect the young men of the Bowdoin Street Church wished to hold a prayer meeting for the slaves and applied to "the Committee" for the use of its vestries, but it was denied, although I offered \$5 per evening.

One year, I cannot recollect which (but I think about 1836), we were utterly unable to procure a room and met in a loft of a stable in the rear of the Marlboro Hotel. It was rudely fitted up, but answered our purpose pretty well; and what was more, it brought about an important movement—for feeling the great emergency in which we were placed without any hall in Boston that could be had for free discussion, the project was started of building or buying one. A subscription was opened among the friends of the object and I think I made the first, and recollect I put down \$1000. The effort proved so far successful, that we formed a company and purchased the Marlboro Estate for that purpose. We chose this property for several reasons—1st Because it was a great public nuisance, being one of the worst grogeries in the city, 2nd Because it was very central, 3rd Because we could secure our object more economically than any other way.

Our plan was to keep the hotel as such, only make it a model Temperance and Christian House and demolish the stable in the rear and erect a Hall upon the site.

The whole operation would cost a great deal more than we had money to accomplish, so we hit upon the expedient (then I believe a novel one) of making a mortgage to secure if I recollect aright 56000 dollars in notes of 100—500—and 1000 dollars each. This we did—a board of Trustees was chosen who were to hold the whole estate in trust to secure the payment of principal and interest—the Trustees making themselves, as I recollect the matter, personally responsible for the interest annually. I was Chairman of the Board and of course had to take the laboring oar so far as financial affairs were concerned. It cost me many years of labor and a great pecuniary responsibility, but I never regretted the movement.

Since Amasa Walker is to-day remembered almost exclusively as an economist, and since, even making allowance for filial piety, no one was better fitted than Francis Walker to fix his father's place in the economic hierarchy, it is interesting to read what, in 1888, the younger economist wrote concerning the elder: *

The year 1857 was one of great import to the life of Mr. Walker. Early in the year he began the publication, in Hunt's Merchants' Magazine, of a series of articles on political economy. The series had already progressed so far as to give Mr. Walker's views on money, when the financial panic of 1857 commenced. Almost by chance Mr. Walker attended, early in October, a large meeting of the merchants of Boston, intended to fortify the banks of that city in their determination to maintain specie payments. At this meeting, Mr. Walker took the ground strongly that the banks could not possibly maintain specie payments for more than two weeks, and that it was desirable they should at once suspend, instead of causing the failure of the best merchants of the city, as they must inevitably do, by refusing discounts in a vain attempt to

* Memoir by Francis A. Walker.

save their own so-called honor. This speech created a great sensation at the time, and gave rise to a heated discussion in the public press; but the suspension, within twelve days, of every bank in Boston, after causing the failure of great numbers of the best mercantile houses, some of them worth millions of dollars, gave so striking a confirmation to Mr. Walker's views as to bring him into prominence as an authority on finance, and to cause him to be invited to write and lecture far beyond the limits of his time and strength. This episode may properly be considered the turning point in Mr. Walker's intellectual career. From this time till the time of his death the subject of the Currency remained the most absorbing of all which had previously engrossed his mind, and his interest increased with the passage of years.

Late in 1857, Mr. Walker published a pamphlet on "The Nature and Uses of Money," to which he added a "History of the Wickaboag Bank," a work which had a large circulation. Mr. Walker's views on money, as presented in this pamphlet, were essentially those of the so-called "Currency School," of which Lord Overstone, Col. Torrens and Mr. George Warde Norman were the leaders in England; and of which Mr. Walker, Mr. William M. Gouge and Mr. Condy Raguet became the best known writers in the United States.

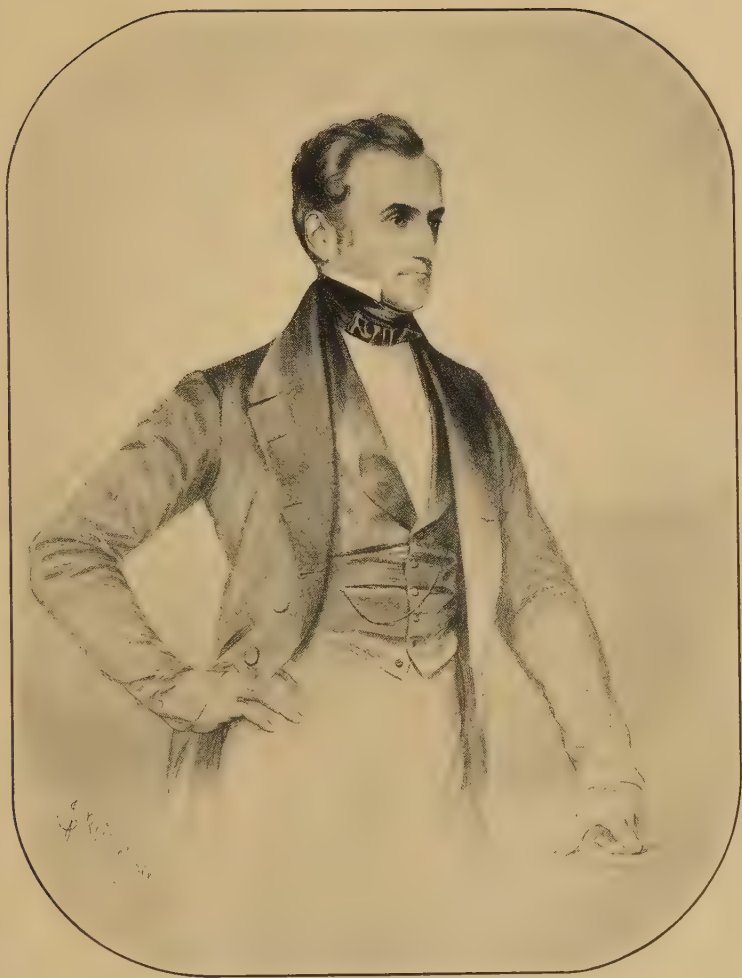
In 1866, Mr. Walker published his main work in economics, entitled "The Science of Wealth." This work passed, in the following years, through not less than eight American editions, was translated into Italian by Professor Cognetti, of Turin,* and received very marked

* "SOCIETA DEL CASINO, Mantova

Right Honourable Sir

I have read your beautiful work—The Science of Wealth—and I was stricken by the deepness of observation and elevation of ideas I found in it; such merits render it to my eyes the best Manual of Political Economy which has appeared at our Days. Now the questions that you have most largely treated in your volume are also in my country of the greatest importance at the present moment, and the economical studies would be greatly advantaged also in Italy if the results of your meditations would be known by every one who applies himself to this science.

I ask you then, most esteemed Sir, your kind permission of translating your book in my own language, if you grant it you will acquire a right not only to my gratitude, but also to that of all my countrymen.



Amasa Walker

attention and the warmest commendation from the economists of America and Europe. Subsequently a student's edition of this work was issued and extensively used. In the main, the Science of Wealth belonged to the so-called orthodox school of political economy. It contained, as might have been expected, the views of paper-money banking set forth in the pamphlet of 1857, greatly elaborated. The other features of the work were (1) the absence of even a suggestion of the Wage Fund doctrine, then absolutely undisputed in England and largely adopted by American economists, but now utterly exploded; (2) the importance assigned to questions relating to the Consumption of Wealth, a department which the political economists of that day were agreed in neglecting, or even formerly rejecting, as outside the limits of their inquiry, but now recognized as the most hopeful field of economic investigation; (3) the profusion of illustrations drawn from practical affairs, and especially from finance and the larger operations of commerce; (4) the moral enthusiasm, confidence in the right, and hope for the future, which pervaded the book, and which, together with its wealth of examples drawn from American life, gave it a peculiar interest to writers and students of political economy in Europe.

When death overcame this gallant fighter against his own ill-health and against the manifold sicknesses of the body-politic, it found him with

his physical and intellectual activity unimpaired up to the very instant when, on the 29th of October, 1875, without a word or a sigh, and without the slightest premonition of approaching dissolution, he ceased to breathe.*

I beg to let me your answer as soon as possible and in the meantime I am with the greatest consideration

Your most obedient servant

S. COGNETTI DE MARTIS

Professor of political economy
at the Instituto Tecnico of Mantova

* Memoir by Francis A. Walker.

Not long before, he had entered in his faithful note-book:

What I should like to do, but probably never shall.

Write an article or small work on the Political Economy of the Bible. It would be a fine subject and an ample one.

A work upon Taxation.

A work upon the Labor movement, showing what labor ought to demand and can have, and what it ought not to ask for and will never get.

An article upon corporations for economic purposes.

Regarding his father's death, Francis Amasa wrote, November 4, 1875, to his friend Henry Holt:

For your kind expressions of sympathy on my father's death, you have my sincere thanks. I could have been much more easily reconciled, had it not been for the peculiar pleasure he took in his ten grandchildren, and they in him. Here seemed to be the reason for some years more of life, that should be happy in spite of increasing infirmity, and even the great overshadowing loss * of the last summer.

But it was not to be so, and we rejoice unqualifiedly in the expressions of respect that come up on every side.

* This refers to the death of Amasa's wife.

CHAPTER II

YOUTH AND WAR

IN 1825 Amasa Walker had entered into partnership with Mr. Charles G. Carleton, under the firm name of Carleton and Walker, in the manufacturing and whole-sale selling of boots and shoes. Their headquarters were in Boston; but they carried on what for those days were widely extended operations as far west as, and even beyond, the Mississippi River. In the following year, Mr. Walker married his partner's sister, Emeline, daughter of Deacon Jonathan Carleton of Boston. She lived only two years after the marriage, and the child whom she left died in infancy. Six years later, on June 23, 1834, Amasa Walker married Miss Hannah Ambrose of Concord, New Hampshire, and from this marriage resulted two sons and a daughter, the youngest child being Francis Amasa. He was born in Boston, July 2, 1840.

In an article by J. J. Spencer,* it is stated that

The house of Professor Walker in Montgomery Place was next to that of Dr. Oliver Wendell Holmes, with whose son, Judge Oliver Wendell Holmes, General Walker enjoyed an intimate friendship during the last years of his life.

1840 was the year in which Amasa Walker retired from active business. Within two years he began to lecture on Political Economy at Oberlin. His children, therefore, knew him only in what he calls his "third

* *Review of Reviews*, Feb., 1897.

period," during which, as has already appeared, he was the public servant spending himself untiringly to promote great causes. Not only did his example of devotion to the general good have a very stimulating effect upon his children, but he actually used young Francis, from an early age, to help him in his economic work.

That the boy, even in his callow years, was imbued with his father's zeal for reform is indicated by the following letter received when Francis was only fourteen:

Sandusky, Ohio, Feb. 24, 1855.

MY DEAR YOUNG FRIEND:

Your letter to me of the 19th ult was received yesterday and I take an early moment to reply to an especial communication as I consider yours, reflecting high credit both to the heart and head of its youthful author.

I assure you it affords me great gratification to receive such offerings as yours, not because it contained money (however needful in paying such oppressive judgments as mine)* but for the reason that it strengthens one's soul in its determination to resist the wrong and aid the right.

I trust, my young friend, you will embrace every opportunity to familiarize yourself with the demands of pressing *exigency*, which in not only my case, calls upon every young as well as old man, to free our country of *laws*, which would blacken with their barbarity the dark ages, long since by historians said to be past. Persevere in your well begun course and the God of our Universe will bless you.

Very truly your well wisher,
RUSH R. SLOANE.

Master Francis A. Walker,
North Brookfield, Mass.

Francis Amasa Walker seems, in the main, to have been normal both in physical constitution and in tem-

* Presumably in connection with opposing slavery.

perament. He grew up in the healthful country of North Brookfield, to which place his father had permanently moved from Boston in 1843, and shared actively in the usual sports of youth, especially in riding and athletic games. His parents seem to have been apprehensive concerning his physical condition, and a temporary weakness of the eyes delayed his course through college; yet the Civil War proved that he could endure almost any degree of hardship and fatigue. One of his classmates, Mr. West, writes of him:

He was fond of sports, when there was a contest,—such games as baseball and chess. He was the only man I ever met to whom knowledge came without any effort.

One shortcoming of young Walker's was so frequently referred to by him in middle life that it must have been relatively conspicuous, although it seems to have made no impression upon his contemporaries. That defect was a hasty, almost ungovernable, temper. He says in one of those "War Stories" which will be referred to later:

I was born with an unfortunate disposition, which, in my early years, gave a great deal of trouble and anxiety to my parents. During my years at college, I was able to bring myself increasingly under control, so that I left college with a pretty steady temper, which has got away with me during my whole subsequent life fewer times than I can count upon the fingers of one hand.

This self-judgment seems rather too lenient; for, even many years later, this temper burst out occasionally under great provocation, and was indeed a fearsome thing. The glory of it was that he did control himself by an effort seen to be Herculean, so that nothing was the worse, as a rule, for the sudden tempest that raged in his deep-set eyes. One notable

exhibition of this Jovian anger, when he was president of the Institute of Technology, will be cited later.

These temperamental storms were, however, rare interruptions of the placid tenor of his sunny, friendly way. Judge Lowell * states that

a fellow pupil, two or three years his (Walker's) senior, who never saw him after his boyhood, kept fresh for nearly fifty years the memory of his personal charm and affectionate nature as a schoolboy.

That charm not only remained with him, but grew with the years, attracting to him an ever-increasing circle of devoted friends. Actually shy, he was so fond of his fellow-men and was so brimming with good-will, that the barriers of reserve were easily broken and, however uncomfortable he himself might feel, he possessed unfailing ability to put others at their ease. He belonged to the very small class of men who have genuine "magnetism," and his—always unconscious—exercise of that quality was a factor not to be neglected in considering his popularity as a soldier, his success as an organizer, and his ability to inspire young men.

For two years, in Walker's childhood, Lucy Stone, afterwards so prominent in the campaign for extension of the suffrage, was closely associated with the family of Amasa Walker, and it would seem that Francis came under her teaching. In 1880 she urged him, in a letter, to support suffrage for women, adding: "I did not think, thirty years ago, when you were my pupil, I should ever be imploring help of you in this way." He was a believer in suffrage for women, and at times spoke in favor of it before legislative committees.

Mrs. Stone should have added at least four to her

* Memoir, Proc. Mass. Hist. Soc., Nov., 1889.

“thirty years” in view of the statement made by Col. Carroll D. Wright, an intimate friend: *

At the age of seven Francis Amasa took up the study of Latin in a school for boys in Brookfield, remaining two years. He then spent nearly three years in the public and private schools in North Brookfield, and when about 12 years of age was sent to the Leicester Academy for a time. Completing his college preparation at the age of 14, he spent another year in the study of Latin and Greek under Mr. Kimball in the academy at Lancaster, Mass. He was matriculated at Amherst College at the age of 15, and was graduated in 1860, being awarded two prizes for extempore speaking.

Reference to the fact of his five years' residence at Amherst is found in a letter from a classmate, Rev. Cornelius E. Dickinson, of Marietta, Ohio, who says:

He [Walker] entered Amherst in the Class of '59. Why he fell back a year I cannot recall, very likely health. He became a member of our Class, '60, at the beginning of the third term, Sophomore year (Spring of 1858) and graduated with that class. In scholarship he was in the first third of a class of forty-eight members, having received an appointment in Phi Beta Kappa. He was a diligent, all around scholar excelling as a writer. He received, I think, the first prize on an important essay either Senior or Junior year. As a student he was very persistent in anything which specially interested him, often extending his studies far into the night. I remember one story told of him, though I cannot vouch for its truth, only it seems to have been characteristic of him. A friend asked him to continue his visit one evening and Walker replied, "I must get to bed for I am about two nights behind in sleep." He was a companionable man and highly esteemed by his own classmates.

Another Amherst contemporary, Professor George L. Goodale, of Harvard University, writes:

* Address, Quarterly Pub. Amer. Statistical Association, June, 1897.

He was a good scholar, a ready writer, a forcible speaker, an all-round athlete, an excellent chess-player, a steadfast friend, and universally popular.

Walker took the Sweetser essay prize and the Hardy prize for extempore speaking. His ability as a writer, especially in the field of economics, was exhibited at an early date. He contributed, of course, to the college magazine, the *Ichnolite*, as well as to the *Undergraduate*, apparently intercollegiate in character, for it was published in New Haven, and Walker states that he was editor of it on behalf of Amherst College.

Young Walker did not confine himself, however, to college publications. In the fall of 1857, when he was only seventeen, his "Thoughts on the Hard Times" were printed in the *National Era* of Washington, D. C. During the first half of the following year there were published in that journal four more articles of his, one entitled, "Why Are We a Manufacturing People?" and the other three dealing with the economic views of Henry Carey. That his writings were not confined to this one medium is shown by his own statement in a sketch of the life of Dexter F. Parker. He writes:

For several years before the war, a somewhat conspicuous part in Worcester County politics had been played by a man in very humble circumstances, who had shown a decided ability for public affairs, by name, Dexter F. Parker. I think he was a shoemaker. He was a sort of labor-agitator; but thoroughly disinterested and high-minded. He was at one time a member of the Legislature; and I remember writing a letter to one of the Boston papers—probably the *Journal*, in very active criticism of his views on the money question. This was one of my earliest essays. It was, I think, during the first session of the Legislature after the crisis of 1857, when the revision of the banking laws of the State was under consideration.

Little is preserved of Walker's experiences at Amherst; but that he entered with zest into the life of the college, both academic and social, is indicated by the fact that, in his freshman year, he became a member of Delta Kappa and the Athenian Society; in his sophomore year joined Delta Kappa Epsilon and Alpha Sigma Phi—from which latter society, he states, "I withdrew on account of rowdyism";—was Junior Orator; was "First President" in his Senior year; became, as already stated, editor of *The Undergraduate Magazine* on behalf of Amherst; and, in 1860, was admitted to Phi Beta Kappa. In the then rather limited field of athletic exercises, he excelled in boxing and was praised by a well-known prize fighter for his extraordinary quickness.

When young Walker went to Amherst, he had no intention of remaining beyond the freshman year. He had planned to matriculate at Harvard and the preliminary year at Amherst was undertaken at the instance of Amasa, who believed fifteen to be too early an age for entrance at the larger college. In later life Francis regarded it as good fortune to have attended a small college, maintaining that the limited number of students assures sounder friendships among them, as well as closer contacts with the members of the faculty. He was inclined to believe, moreover, that the thorough "sizing up" which the undergraduate in a small institution secures at the hands of his fellows, gives greater opportunity for him to make an impression as a student and to find himself as a man.

Upon graduation from Amherst in 1860, young Walker entered the law office of Devens and Hoar in Worcester. The senior partner was subsequently the famous General Charles Devens of the Civil War who was Attorney General in the administration of Presi-

dent Hayes, while the junior partner, George Frisbie Hoar, ably represented Massachusetts for many years in the Senate of the United States.

Walker continued also to be of service to his over-busy father, for in Amasa's note-books is found this item, under the year 1850:

Was appointed on a commission for the extirpation of the Pleuro Pneumonia and took an active part in the work, writing the final report, etc. My son Frank acted as Secretary to the commission and did his work well.

The winter of 1860-1 was not one, however, in which a youth of Francis Walker's temperament could devote himself calmly to the study of tedious statutes and the digging out of musty cases. Threatening war was the sole topic of conversation; the tension of waiting for the inauguration of Lincoln, with its probable consequences, was almost unbearable; and upon the young men would come, of course, the main burden of the prospective fighting. Amasa Walker had been for years prominent in the movement for universal peace, had refused to join Garrison and Phillips in their "direct action" projects, and had always strongly advocated adherence to strictly constitutional means in the abolition of slavery. It must have been difficult for him, therefore, to take the militant attitude which the acts of the Southerners were forcing upon their Northern brethren. Nevertheless, when Sumter was fired upon, he aligned himself with those who urged recourse to arms and encouraged his elder son to prepare for military service.

Francis, however, was his youngest child, was still, in his eyes (being not yet twenty-one), too youthful for the hardships of war, and, after the illness which had kept him out of college for nearly a year, was

apparently not robust. One can well understand, therefore, the statement with which Francis opens his story, "How I obtained my first commission": *

I was not able to enter the service with the Three Months' troops (called by President Lincoln in April, 1861), owing to the opposition of my father, who not very unreasonably objected to both his sons going out among the first seventy-five thousand. I went so far as to equip myself in the uniform of Major Devens' 3d Battalion of Rifles and accompanied the Battalion to New York; but my father's persistence in his objections brought me back in a very unhappy state of mind.

Walker had probably been drilling in Worcester with this organization all winter, for in another narrative he refers, using the later titles of his law-office elders, to "the rifle-corps which General Devens and Senator Hoar and Mayor Marsh and a great number of the best people in Worcester formed during the winter of 1860-61, in anticipation of the outbreak."

Having close ahead of him that twenty-first birthday which would give him, on July 2, 1861, the legal power of decision, young Francis, on May 31, wrote to Governor Andrew:

I should be much gratified to receive a commission in one of the companies to be organized for the war, if it might consist with your duty to the service. I cannot assure myself that I am peculiarly qualified for military rank, to which I have had but little inclination; yet I am

* General Walker prepared for his family a number of short narratives concerning his experiences in the Civil War. Many of these are too ephemeral for reproduction; but, since he kept himself so rigorously in the background in his "History of the Second Army Corps," they constitute the chief source of information as to his movements during that momentous period. His secretary, Miss Holt, to whom most of these stories were dictated, writes: "After hours, sometimes, when he was in the mood, he would dictate stories of his war experiences, saying they were for his grandchildren." In reading the quotations which later will be made, it must always be remembered that they were not intended for publication.

confident of a mind willing to perform any office through the length and breadth of it.

I have had some instruction in company movements under well-appointed soldiers, and my general education will, I trust, be found sufficient to any probable demand in such position. I beg you, however, not to believe that I make a Commission the condition of my service for I hold myself ready for the humblest and hardest work in the sacred cause.

I have the honor to be

Your Excellency's Obdt. Servt.,

FRANCIS AMASA WALKER.

He sent out a letter the same day to the Adjutant General of the M. V. M., William Schouler, whom he seems to have met at Amherst, urging his good offices with the Governor, and ending:

I believe I should make a reasonably good lieutenant; at any rate, I should like to try it, south of Mason and Dixon's Line.

Most characteristic was that last phrase. Francis Walker wanted always to be where something was being accomplished, and was impatient of inaction, believing it to be the inevitable beginning of retrogression.

These applications seem either to have been fruitless or to have aroused his father to new opposition, for, continuing the narrative of which the opening statement has been already quoted, Francis Walker writes:

On the 2d of July I became of age; and the Battle of Bull Run, on the 21st of that month, put an end to any unwillingness in the family to have me enter the service. I consequently began to look about for an opening. At that time, companies were raised in the various towns by voluntary enlistment, and each company chose its own officers. Unfortunately, before I was free to go, the town

of No. Brookfield, where I then had my legal residence, though nominally studying law in Worcester, in the office of Devens and Hoar, had raised its company; and the officers had been chosen. Gen. Devens, however, who was to command the 15th regiment, promised to arrange to have me commissioned in some other company, if practicable; and with this promise I went uneasily back to Brookfield, to await his action.

One day I received a dispatch, telling me that the matter was settled, and directing me to come at once to Worcester, where the regiment was encamped. I hastened down and was informed that Capt. Bowman, of C Co. of Clinton, was to become Major of the regiment; his 1st Lieutenant, Captain; his 2d Lieutenant, 1st Lieutenant; and little *I* was to be brought in as 2d Lieutenant. The General assured me that all was right, the arrangement having been approved by Gov. Andrew; and that I might safely order my uniform; but he thought that, until the commission actually arrived, it would be best for me not to go to the company, but remain, as his guest, at headquarters, than which, of course, nothing could be more agreeable.

Wednesday came; and in the morning the General went down to Boston, to see the Governor. On his return, he sent a messenger for me; and told me, in the kindest way, that our plans had been blown sky-high, through a memorial sent by C Co. to the Governor, declaring that they would not be mustered into the United States service, if a man from another part of the country were to be commissioned over them. Hereupon, Gov. Andrew declared that if Capt. Bowman could not control his own company, he should not be major of the regiment. Consequently, the expected vacancy, the 2d Lieutenantcy, was not created; and the youthful aspirant from No. Brookfield was left out very much in the cold.

The General was truly kind about the whole matter, expressing the deepest regret and the best of good wishes; telling me that the only thing to do was to go home and

await the formation of a new regiment, which would undoubtedly soon take place, in which case he would use his utmost influence with whomsoever should be appointed to the command, as well as with the Governor of the State, to give me an early and a fair chance. I told the General that I could not endure to go back; that I had already waited several weeks and was very unhappy about it; that I had thrown up my studies and said good-bye to my friends; and that I could not give it up. On this, the General said, "Well, if you are determined to go, there is another position which I can offer you, which, however, I do not advise you to take. On the contrary, I distinctly recommend you to pursue the other course. I can make you sergeant-major of the regiment, that position not being filled. Of course, you understand that you will be an enlisted man, liable to be reduced to the ranks, and completely out of the social grade of the commissioned officers, which will be a thing not easy to bear. Moreover," he said, "I feel bound to say that I have always taken a position against the promotion of staff sergeants to company lieutenancies. I think it leads to unworthy favoritism; and I candidly tell you that, if you take the position you suggest, I shall not, except for extraordinary reasons, hold myself free to nominate you for a lieutenancy in the line. You had better not take the place. At any rate, there is no hurry about the matter; think it over and tell me what you decide."

I thanked the General heartily for his kindness; and, leaving the office, went out for a walk, in which to think the matter over, a matter which then assumed proportions which at this time seem almost ludicrous. It chanced that my steps took me down Main St.; and, as I passed the store of Mr. Eames, one of the leading tailors of the city, it occurred to me that my new uniform was to be ready that afternoon. I walked into the store and asked Mr. Eames if the uniform was "done." He said, "yes" and ordered it brought out. I endued myself with the blue coat, and the gilt buttons, and the gold straps of a 2d

lieutenant of infantry. If I were to receive the Iron Cross of Germany and the Order of the Garter from England today, by the same mail, I don't think I should gaze upon them with so much pride as I felt in viewing my youthful proportions in the dress of an officer of the United States army. I looked long and longingly; but finally drew off the coat and said to Mr. Eames, "Please take off the shoulder-straps and put on the chevrons of a sergeant-major." It took some little time to make Mr. Eames understand the situation; but, having finished my tailoring business, I walked rapidly back to the General's office and reported for duty as sergeant-major of the 15th Massachusetts Regiment.

During the week or two that we remained in camp; during the journey to Washington, and the first camp on Kalorama Heights; during the march through Rockville to Poolesville, and in camp at Poolesville, for two or three weeks under the command of Gen. Chas. P. Stone, the regiment derived all the advantage that was to be obtained from the faithful services of a very green young sergeant-major, who, however, was actively striving to qualify himself for his future office duties, taking part in the sergeants' drill, and helping to form the line for dress-parade.

One day, while we were at Poolesville, on the Upper Potomac, Gen. Devens sent for me and told me to go to the quartermaster, Church Howe, and say that I was to have a horse to accompany him, the General, to Edward's Ferry, the scene of a terrible tragedy only five weeks later. I had no suspicion of the General's object in taking me along, beyond what was expressed in his purpose to visit our picket-line along the Potomac. As we rode home, however, he called me up and told me that he had brought me for a purpose. He said that, when in camp at Kalorama, he had served as a member of a Court Martial, the president of which was Brig. Gen. Couch, late colonel of the 7th Massachusetts; that General Couch had consulted him regarding the appointment of an

assistant adjutant general, and had inquired particularly regarding two men in the 15th, who had been specially commended; that he, Gen. Devens, had declined to recommend either of the gentlemen named, though both were meritorious officers, but not, as he thought, up to the mark, and had mentioned to Gen. Couch both his own adjutant, George Hicks, and his sergeant-major, myself. In the course of the conversation Devens had told Couch the story of my disappointment about the lieutenancy, and the change of uniform. Couch had been so pleased with this that he sent a letter to Devens' Camp, asking to have me call upon him. The night before, however, the 15th Regiment received its orders to march to Poolesville and, when Couch's messenger arrived our late camp was like a last year's crow's nest.

In the interval which had elapsed, Devens gave no more attention to the subject, thinking it probable that Couch had found some one who was nearer to his hand and nearer to his taste; but he had that day received a telegram from Washington, asking him to honorably discharge from service Sergeant-major Francis A. Walker, 15th Massachusetts, with the view of his being appointed Captain and Asst. Adjt. General. And so I got my first commission. And this is the reason why ever since I have told every young man who has come to me for advice to take up whatsoever work his hands found to do, without asking whether it was all that his education or his social position might lead him to expect.

General Walker consistently practised what he preached in taking up "whatsoever work his hands found to do." To him no duty seemed mean, trivial or beneath his powers, provided it had to be done by some one and conditions pointed to him as the individual by whom it could be most effectively performed. If letters had to be answered and no clerk was on service, he would write, if necessary, far into the night with his own hand; if a committee performing some public duty needed an efficient "drudge," and none

other was to be secured, he would himself volunteer for that thankless occupation; if some one genuinely interested in education wanted to inspect the laboratories of the Institute of Technology and a competent guide happened not to be available, President Walker would make the tour, not only cheerfully, but with enthusiasm.

Not overestimating his powers, but realizing his special capacities, he felt it incumbent upon him, as man and citizen, to take hold of whatever thing of importance needed to be done and to carry it forward zealously, not for his own advantage, but for the sake of the result. Whether or not this assumption of a new burden was beneath his dignity, whether it would bring him fame or contumely, whether or not the performing of this service for others might preclude some chance of serving himself, affected not at all his decision. Sometimes, as in the case of his early military experience, the reward for his self-forgetting came; more often it did not. Enough for him that he had done his duty at the time and in the way that the occasion seemed to him to require.

The value of this outstanding characteristic to the Institute of Technology in the earlier years of his presidency cannot be overestimated. The institution was desperately poor and, as a consequence, seriously understaffed. Every official had, therefore, to undertake many duties quite outside his special province and to submit to the burden of long hours devoted, not seldom, to most irksome clerical work. That the staff performed this miscellaneous and extraneous service not only willingly, but with enthusiasm, was due in no small measure to the contagious example of their President, who was foremost in seeking to contribute his utmost towards all things undertaken to conserve and promote the Institute's well-being.

CHAPTER III

IN McCLELLAN'S ARMY

MILITARY titles are such vague things and are used by most civilians with so little discrimination, that it is well to clear that uncertain ground by at once transcribing Walker's own memorandum of his successive ranks and the dates of their bestowal:

August to September, 1861—Sergeant-major, 15th Mass. Vols.

September 14, 1861, to August 10, 1862, Captain and Asst. Adjutant General, U. S. V.

August 11 to December 31, 1862—Major and Asst. Adjutant General, U. S. V.

January 1, 1863, to January 12, 1865—Lieut. Colonel, Asst. Adjutant General, U. S. V. Headquarters Second Army Corps.

August, 1864—Brevet Colonel, U. S. V.

March 13, 1865—Brevet Brigadier General, U. S. V.

His experience in the Civil War, after a few preliminary weeks of humbler service, was with the staff and in the multitudinous and fatiguing duties of brigade or corps headquarters. First under Couch and later under Hancock, he took active part in many of the important battles of the War, had opportunity to meet most, if not all, of the outstanding figures of the Union Army and, as Assistant Adjutant General in a leading army corps, gained a knowledge of military strategy that the line officer has little chance to acquire.

Associated throughout the war with the Army of the Potomac, he shared, of course, the fierce prejudices

and joined in the high enthusiasms of that great organization, which would have proved so much mightier as a military arm had it not been a victim to recurrent paralysis induced by political timidity at Washington. As will appear, his earlier impressions of McClellan were distinctly unfavorable, although his later judgments were more charitable. Of many of the other outstanding leaders he always spoke in terms that, with any one else, would have seemed extravagant. When, in an address at Portland, Maine, in 1890, he recited in Homeric measures the deeds of the Army of the Potomac, his picture of its campaigns and leaders was so glowing as to call forth from General Sherman, who was also a speaker, a good-natured protest on behalf of the other armies. Walker's strong phrases were not, however, either rhetorical or for effect. He was so generous towards others, so full of real admiration for courage, dash and resourcefulness, so devoted to his friends, that every sentence of praise was uttered with complete sincerity. What with more phlegmatic men would have been exaggeration and overemphasis was, with him, the natural expression of his genuine self.

This is no place in which to review the Civil War campaigns; but it must not be forgotten that the leaders of the Army of the Potomac, wanting to make that splendid body a continuously offensive weapon against the heart of the Confederacy, were too often forced, by irresistible civilian pressure, to put it in the false position, strategically, of a defensive arm for the District of Columbia. Not seldom were the strategic skill of the officers and the unfaltering bravery of the men sacrificed to the stupid terror of non-combatants who, unfortunately, were in a position to nullify sound military plans. Not until Grant was given a

comparatively free hand to strike against Richmond, did the light of hope completely dawn; although, of course, the turning of fortune towards the Union arms at Gettysburg had been full of promise of ultimate success.

In his "History of the Second Army Corps," published in 1886, General Walker reviewed brilliantly and exhaustively the successive campaigns of that famous organization. Excepting a comparatively short furlough due to wounds—an absence which deprived him of the joy of taking part with his superb corps commander, Hancock, in that leader's great day at Gettysburg—and a fortunately brief sojourn in Libby Prison, young Walker served continuously from August, 1861, to practically the end of the war.

After his few weeks' experience as a non-commissioned officer, he went to Washington, on September 15, 1861, to take his place as Assistant Adjutant General with Couch's Brigade. To demonstrate how "green" he was,—for it was typical of him to poke fun at himself on all occasions—he tells the following story of his arrival at Washington:

I had about \$30, which was all a sergeant-major could possibly need; but I had a feeling that it was necessary to report at once to Gen. Couch, and to report in uniform; or I should be committing a military offence. I might have written, explaining my situation and asking the General's commands, which would, of course, have brought me a letter commending me to any tailor on the Avenue, or a summons to appear without regard to dress. I could have telegraphed to my father, or my brother-in-law, in Massachusetts; and have received, in a day or two, a check for whatever money I desired, or even, the same day, a telegraphic credit at some Washington banker's. Each of the two senators from Massachusetts, Sumner and Wilson, had been for many years among my

father's intimate friends; and several members of the House had been associated with him in the earlier anti-slavery contests.

It seems simply incredible now that I should have had so little *savoir faire*, should have been so completely balled-up and embarrassed by my supposed necessities, as to pawn my watch to get the money I needed. Probably there was not a tailor in the city who would not have been delighted to take my order upon credit, on my exhibiting the telegraphic dispatch summoning me to a position which carried the rank of a captain of cavalry. Yet I actually did this thing: took my watch to Goldstein's, behind the old National Hotel, and raised something like \$40 on it. This, in addition to what I had brought with me from Poolesville, enabled me to dress myself well to report for duty to General Couch, sword and all.

This sword was stolen from him, two years later, when he lay wounded after Chancellorsville. His first weapon, "a very pretty Knight Templar's sword," he had sold at Poolesville, being "just donkey enough to think that I should never again wish to see that emblem of inferior rank."

Busy in military preparations as the winter of 1861-2 must have been for him, the first record of Walker's service that we have is in one of the narratives dictated by him nearly thirty years later, in which he refers to the engagement at Williamsburg as "my first battle." It was a curious coincidence that during this early conflict of the war so much damage should have been done, by lawless Union troops, to the historic buildings of that old College of William and Mary at which William Barton Rogers, founder of the Massachusetts Institute of Technology, had been a student and for some time a teacher, many years before. Needless to say, Walker was not cognizant, at the time, of this vandalism.

Early in the evening of the following day, according to Walker's narrative:

I was sent by Couch to accompany a large part of his ambulances to Gen. Hooker's camp. After going a considerable distance in the general direction where I supposed Hooker's camps would be, and finding myself near Fort Magruder, I became doubtful which way to turn; and, seeing, near the road by which we were proceeding, a rather tall figure, I thought it best to enquire the way to Gen. Hooker's headquarters. A voice from the darkness replied: "I am Gen. Hooker. What can I do for you?" My errand was briefly stated; and Gen. Hooker cordially expressed his thanks to Gen. Couch, asking that his compliments be made, and thanking me personally for having conducted the train.

Having done my errand I was about to ride away, when some reference to the battle of the day before led Gen. Hooker to begin his story. Why he told it to me, except that his heart was full of it, it would be difficult to say; but he did not seem capable of breaking off the tale until I had heard the whole of it. What he said was very much like what was contained in his official report rendered a little later. It contained very severe strictures upon Gen. McClellan, Gen. Heintzelman and other officers. In the latter respect the talk was characteristic, for Hooker was always blaming somebody.*

What impressed me most, and that impression has never died out of my mind, was the voice of the speaker. I could not see his face well enough to recognize it the next day, though his figure was fairly to be discerned against the evening sky; but the notes of his voice were simply perfect. I cannot say that I was impressed by his views, for I had my own notions regarding the battle of the day

* Dr. Charles W. Eliot writes: "The most interesting remark General Walker ever made to me concerned the condition of collapse into which General Hooker fell on the great day of his life: 'The trouble was that we of his staff did not know whether he had too much whiskey or too little.'"

before, having been at the Whittaker House, the general headquarters, a number of times; but I certainly was charmed. It seemed a great kindness to a raw boy, to talk thus to him, for nearly an hour, as the General did; but I really believe that it was as much a relief to him as it was a pleasure to me.

Modestly as Walker disclaims any rôle except that of chance confidant to the overwrought Hooker, it is safe to believe that the young man's compelling charm had much to do with this frank outpouring of the General's self-justification.

In his report of the battle of Williamsburg, General Couch says: *

Captain Walker, my assistant adjutant-general, and my aides-de-camp, Lieutenants Edwards and Burt, rendered me the most valuable assistance, maintaining perfect composure while under the fire of the enemy's shot and shell.

The next engagement in which Walker participated was the Battle of Fair Oaks, on May 31, 1862. The following record—and it must not be forgotten that this was made for his grandchildren, not for the public—presents a delightful picture of the confident young soldier giving advice. He himself was amused at the bumptiousness of it, but concerning its soundness he had no misgivings:

To support and to save from impending destruction Couch's four regiments and a battery which had been broken off from the main body of the army, Sedgwick's division was sent up. The first of Sedgwick's regiments to arrive was the 1st Minnesota, under Col. Alfred Sully, afterwards General Sully. This, by Couch's directions, I met in the road and turned off to the right where I gave

* War of the Rebellion: Records of the Union and Confederate Armies. Series 1, Vol. XI., part 1, p. 518.

Sully the benefit of some of my mature suggestions regarding the best position for him to take—suggestions which many a volunteer colonel would have thankfully received, but which, doubtless, gave Sully, as an old army officer and an Indian fighter, some little amusement when coming from a very young staff officer of volunteers. Sully, however, was good enough to preserve an imperturbable countenance, and as he actually did the things recommended, it may not unfairly be concluded that the suggestions were not bad in themselves.

Returning from this excursion, to the Adams House, I found there other of Sedgwick's regiments forming in line of battle, and some of Kirby's guns of the 1st U. S. Artillery already in position; while the rest were on the way up from the bridge where they had been stalled in the mud, only to be extricated one by one. Just about this time a body of troops was seen moving from the railroad down into the large open field between us and Fair Oaks Station. It seemed to me so clear that these were Confederates that I was utterly unable to understand Couch's insistence that they were some of Kearney's men falling back toward our position. I ventured again to express my strong dissent from this conclusion; and the General was good enough to say that I might go down and see for myself.

As I returned on the dead run from an uncomfortably close survey of the troops in question, belonging, as it proved, to Whiting's Confederate division, I found General Sumner and his staff near the road, near Kirby's right piece. I had never seen the General before, but his striking appearance, with his white beard and long hair and splendid presence, left no doubt as to who he was. Lifting my hand to my cap in salute I exclaimed, "General, they are rebels!" "I thought as much," was General Sumner's reply. "Kirby, fire!" To this moment, I can see the smoke arising from Kirby's right piece and then the shell, a fraction of a second later, burst in front of the Confederate line which was now almost formed.

Of Walker's work in this engagement, Couch reports: *

. . . My thanks are due to Captain Walker, assistant adjutant-general, and (naming others). The former made a daring personal reconnaissance, and had his horse shot under him by my side.

Walker thus records this tragedy of the "noble animal" whom he had named, after his former chief, "Devens":

I was following Couch closely, when I felt a severe blow upon my knee. I dropped my left hand to find the hole; but satisfied myself that the ball had struck the scabbard, which, in turn, had given the blow I felt. Before, however, we had cleared Kirby's right piece, my Devens began to act very strangely, stopping short, waving his head right and left, and plunging. I had no other thought than that the animal was scared by the terrific firing; and, being utterly out of patience that he should begin fooling at such a time, turned both spurs in upon him and gored him hard. The poor brute rose into the air almost perpendicularly, and then fell to the ground. The ball which struck the scabbard had penetrated two thicknesses of bull's hide, belonging to the Grimsley saddle, and buried itself in his body. He was still alive; and, with much grief, I placed my revolver at his head and gave him the *coup de grâce*.

It is one of the curious coincidences of war that Devens had fallen just in front of the colors of the 15th Massachusetts, Devens' old regiment and my own, which had come up and formed in support of Kirby's Battery. If he had simply rolled over in his death agony, he would have broken the line of the 15th at this point.

* War of the Rebellion: Records of the Union and Confederate Armies. Series 1, Vol. XI., part 1, p. 881.

The following graphic account of the famous "Seven Days": Oak Grove, Mechanicsville, Gaines' Mill, Savage's Station and Allen's Farm, White Oak Swamp and Malvern Hills: reflects the impetuous boy of 1862, hating the "Secesh," grouching at McClellan, scorning the "slackers" at home, and exulting that, unlike these and girls like "Kate," he is a man and can fight. It is from a letter written to Miss Kate Dana, sister of his Amherst classmate, the Reverend Malcolm Dana. The first page, unfortunately, is missing, so that the narrative begins with Mechanicsville:

On the next P. M. [June 26, 1862] about 1, I was told confidentially that the enemy had turned our right and that Stonewall Jackson was getting in our rear. Imagine my surprise, sorrow, dread! About 4 P. M. we heard from the extreme right the most terrific cannonading ever heard on this continent. Rumors flew around like autumn leaves till at 9 or 10 the tidings came that McCall and Morell had repelled the enemy with great slaughter and the whole army rang with cheers. On the next day, 27th, battles of terrific import were still heard along the right, and unpleasant suggestions of reverses were frequently whispered, though openly all was right and triumphant. That was the day of Porter's fight, when Morell and Sykes got so terribly cut up when McCall's Dutchmen skedaddled in true Southern style. An immense rebel force was poured upon our right, and McClellan's pets were not tough enough for the task. On that night the order was given to "retreat," or to make "a flank movement," or else to secure "a new base of operations," have it what you will, anyway we were to get out of a confounded scrape by leaving for parts unknown.

That Saturday morning, Couch's Division leading the new movement, by McClellan's order, crossed the White Oak Swamp Bridge and took position on the other side,

to protect the passage of the rest. Of the fights of the 28th and 29th you have heard. How the rebels poured their fresh Divisions on our rear guard, and how our rear guard tore them with cannister and heaped the road on which they retreated with myriads of the rebel dead. With the single exception of McClellan's pets, the army withdrew in perfect order, slowly, sullenly, dangerously.

One day such a Division would be ordered to protect the rear and such Divisions to support it. All that day these noble troops would struggle bravely and not ineffectually, but always holding the ground, while the immense columns of the sick, of the artillery, of the wagons were driven ahead. Night would come down on the bloody field, and like spectres the fierce fighting men of that day would pass off in silence. When the sun arose another Division would be formed in line of battle several miles further on, awaiting another attack from the rebels. That is all the story, but I must tell you more particularly of the day when *our* Division had *its* turn at the rear.

On the 29th at 5 P. M. we marched from Haxall's House. We "kept moving" until broad daylight of the 30th, though sometimes poor tired fellows would drop asleep even in the saddle. All that day we were kept under arms with no rest and mighty little to eat. In the afternoon we were put on the quick march to reënforce Sumner. We gained our position and formed line of battle about 6, were just getting ready to be comfortable and have a little sleep, when we were ordered forward. Still another dreary march, lasting till 11½ P. M. Here again we took position and this time *did* lie down. At 11½ orders came to move instantly. Up we rose, faithful to the word of command, and moved. At daylight we took position again, and this time were ordered to hold the road and keep the rear that day. And we did it. But first let me say that after being under fire until 9½ *that* night, we marched all night again and only reached our place of repose at 8 A. M. of July 2nd. Now, Kate,

please figure up how much sleep we had between the nights of June 28th and July 2nd. And let me tell you, that going without sleep to dance is not the same thing with going without sleep to fight and march. As I said, on July 1st, 1862, Couch's Division was the rear guard. That was our charge. Ask McClellan, ask the army, ask the public journals how we held it!

Oh, it was a splendid fight. It was the greatest "Field Day" of the war. The Infantry and Artillery of both armies were in one open field, and every movement was caught with the glance of the eye. It was such a battle as we read of, and see in pictures. And how our Division stood! Had every man been a born angel, he could not have done his whole duty better—tropes and figures fail before the simple fact of their bravery. Fresh lines of the enemy were pushed forward and immense columns were thrown upon them, but they neither feared nor ran. The only difficulty which officers experienced was in keeping their men from dashing singly at the enemy they so scorned and hated. Before the rifles of our gallant fellows the rebel lines would quiver and squirm like snakes. Then again fresh troops would rush on as if they meant to take Hell by storm and in a moment more they would stagger back like a man stunned. Yet moveless as a granite ledge, our single line ran across that field from right to left. And as the sun went down how beautiful and terrible it was! And later still when the darkness struggled with the fierce light of artillery and musketry! Ah, Kate, don't you wish you were a man and could fight?

At 9½ P. M., July 1st, 1862, the Rebels skedaddled and have not appeared in force since, and that, I respectfully submit was

"Couch's Fight"

And we can do it again—just as often as called upon. Brave boys! Bully Division!

It was the only pure, unmistakable, unchequered victory of this whole retreat.

Yet throughout the whole, the loss of the enemy has been terrific. Our retreat has been skilfully conducted. The enemy has driven us by large masses, but those same masses made our Artillery fire more deadly. Then our *minie* balls go farther than round ones, and they kill more surely. Then our troops fight with a prudent valor, while the Secesh fight with reckless, foolish, uncertain courage—now charging like demons when to charge is death, and now skedaddling like so many sheep.

The Rebs outnumber us. I'll tell you what we want. We want all your beaux (you might keep a few "if you want to, bad") to come out here right away, pick up the muskets that fell from gallant hands at Williamsburg, Fair Oaks, Gaines Hill, [*sic*] Peach Orchard, Allen's Farm, Malvern Hill, and all along our bloody line or that have been dropped from nerveless hands in the pestilential swamps of the Chickahominy—and then we want them to stand up all day under this weight of bullets and march all that night in soreness and hunger and thinking perhaps of some dear friend left wounded on the battlefield. We need 200,000 men here. Suppose that all the nice young men of the North should come on now and let us go home to rest and see our friends, sleep once more in beds and have grand dinners and make love to pretty girls. Isn't that fair? Have we not done our full aliquot share? For myself I claim no praise or thanks, but I tell you, Kate Dana, that you owe gratitude and love to every soldier of this army—a debt so big that you will never pay it, if you give your life to the work.

My God, girl, we have left 10,000 bleeding sufferers stretched along our way from Mechanicsville to this present, and thousands of them have their wounds yet undressed, thousands of them have not put food or water to their lips since that bitter moment when they fell under the bright, beautiful banner of freedom!

Shall I tell you how they die? I will not select any of the pious examples. I will take just a rough, honest Massachusetts boy who fell on Hooker's line

on the 25th. His two knee-joints were blown out with shell, his two hands torn off, his left leg broken, and a ghastly hole torn in his side. The film of death was just gathering upon him, when one gentleman remarked to his friend, "You see, sir, how we can suffer and die in this cause." The Bay State boy heard him, opened his eyes for the last time and spoke out firmly, "I hope to God we are whipping the damned scoundrels," and died. Now I tell you, that sounds more of the human to me than the pretty deathbed speeches of your home saints.

Why, I've known a cupful of maggots taken from the head of a living man—shudder, will you, and say that I am a horrid creature? I know it, but I wish you just to know what these boys are suffering here. While your sage ministers and lawyers and merchants are discussing the news and criticizing our movements.

But I'm getting mad, and must stop.

Oh, if you knew how eagerly, earnestly we look for men enough to come to our help, not to relieve us or take our place or save us from any danger, but to assist us to go forward once and repossess the battlefields of June 25 to July 1st. Only give us men, and we will do all the people ask.

Understand us distinctly. We are not fighting for you, or all our fellow-citizens, or any aggregation of persons and interests, but for the holy name of freedom, country, law. Don't regard it as a personal compliment at all. We care nothing whatever about you (I speak of our fellow-citizens in comfort at home) but we do care for the American name, and the grand old flag, and the hope of the world.

Well, Kate, haven't I given you a lecture? Malcolm may take it for one of his sermons if he likes—omitting strictly all profane passages and expunging all portions that are wholly between ourselves.

I am jolly well—never heartier tho often happier. I am not scared. I believe that any one Yankee is good for any 1½ Secesh, and that with a few regular battalions,

the proportion may safely be increased. I believe in the American Eagle and Couch's Division.

(((((I don't believe in McClellan))))))

(Profoundly confidential that means).

Now write me that gossip which you promised me.

Make my profoundest to Malc and believe me

Thine greatly,

FRANK WALKER.

On July 2, 1862, McClellan retired to Harrison's Landing, and weeks of inaction followed. Walker sums up in his narrative, "My welcome home," that disastrous campaign, justifying the outburst, in his letter to Miss Dana, against that much-discussed commander:

Every soldier of 1862 well remembers the hope, the pride and the confidence with which the Army of the Potomac moved to the Peninsula, under McClellan. The politicians had already begun to lose faith in the young Napoleon; and the administration had been nagging him all through the winter with demands for early action. The army itself, however, believed, through and through, in their appointed leader; and entertained no doubt that, when we should fairly get at the Confederates, victory would come, and with victory, peace and union.

The first few weeks on the Peninsula were of the most discouraging character; and in many cases produced very demoralizing effects. The long halt at Yorktown, before entrenchments which could have been easily carried the first afternoon when they were only held by Magruder with about 15,000 men; the doubtful battle at Williamsburg, where we did not by any means do all we had undertaken; the slow march up the Peninsula and then the severely contested and, at the best from our point of view, drawn-battle of Seven Pines, or Fair Oaks; all these had shown the most sanguine that the war was to be no holiday parade and that the result must long be doubtful.

The temper of our troops after Seven Pines was markedly different from that which they had shown at Fort Monroe and Newport News. But the army was to undergo still more depressing experiences. In the seven days' battle, McClellan was driven away from his base on the Pamunkey; and, after the crushing defeat of Gaines' Mills, was obliged to fly for safety and for life, down to the last, brilliant stand on Malvern Hills. At Harrison's Landing, to which McClellan that night withdrew his forces, the feeling, the bearing, and, also, the health of the troops showed the influence of indecisive battles, useless sacrifices, forced marches, and even downright defeats. While the vast majority remained true and firm, desertions from the ranks became frequent, and a host of officers tendered their resignations, some because they were invited so to do by their commanding officers; others, because of loss of interest and the general demoralization.

Nevertheless, in later years, General Walker seems to have held the opinion that if McClellan had been given a fair chance, the Union would have triumphed long before it did.

The narrative, continuing, pictures his mother a very Roman in her stern conception of her son's military duty:

General Couch, a veteran of the Mexican War, though still comparatively a young man, had been indefatigable during the seven days' battles, exerting himself and exposing himself in a degree that was hardly justifiable, with the result that, at Harrison's Landing, he broke completely down under an attack of his old Mexican dysentery, and was obliged to go home for a few weeks, while the army remained inactive.

By no solicitation or suggestion of my own, but purely out of the kind thought of Gen. Couch and Gen. Seth Williams, I found myself given a seven days' leave of

absence, to accompany the General to Massachusetts. Two days were to be consumed in going and two days in returning; but the few remaining days at home were infinitely precious; while even travelling (to which I am exceptionally averse) was pleasanter than staying on the foul and noisome Peninsula, with its miasmatic exhalations, its stench of dead horses, and its still more disagreeable memories.

Travelling day and night, I arrived at West Brookfield, our railway express station, one morning, and, hiring a carriage, was driven to my father's house, about four miles away. It was still early when I arrived, and I found no one in the rooms which I first entered. At last I made my way to my mother's sitting-room, and, opening the door, stood unannounced before her, as she sat in her New England rocking-chair, her hands folded on her lap. Not an intimation of my trip had been given; and she had not a thought of my being nearer than Virginia, when I stood in the flesh before her. Though one of the busiest of women, she had no work in her hands, but her eyes had that far-away look of one not thinking of anything around her; and it was easy to see it was on her two sons in the army her regards were bent. As the opening of the door and my own appearance recalled her to herself, her eyes grew larger and became full of recognition; but she neither rose nor opened her arms to me, nor even unclasped her hands, as she asked, "You haven't left the army, have you?"

In a letter to Miss Dana, Walker gives a whimsical account of this leave:

On the 23d [July, 1862] I left this delightful locality with its limpid streams and its pure bracing air! to accompany my General back to Mass., he having obtained a leave for Twenty days, but my favor being limited to Seven. Stingy Williams! How could you! when it was just as easy to say, "Yes, dear Captain, your devo-

tion in the cabinet, your valor upon the fields, your patience, fortitude and good looks all combine to conquer my consent. Youthful hero! take thirty days!" I would have done it, and poured upon the red head of the generous Williams such floods of blessing as might have strangled him. But he didn't. He said, he did, nothing that looked like it. He had the cool barbarity to write it *seven* days. Never mind, history is full of retributions. The hour will come.

I rose to the height of the occasion, I took the infamous sheet, and quicker than did Magruder from the hills of Malvern, I skedaddled incontinently. With the various aid of the steamboat, the snorting locomotive, one old colt, and, occasionally, of mine own sturdy lower limbs, I overcame space to the extent of 500 miles, and amused myself quite early on Thursday morning with scaring my affectionate family by appearing as the ghost, or otherwise, of a heroic young warrior from the battle-fields of the Peninsula.

After giving "Kate" much sophomoric advice suggested by the fact that she had just attained her majority, Walker reverts to boyish flippancy:

But I am already tired myself of moralizing, for I am crushed under the burden of a new and singular report of General Headquarters, which has been ingeniously devised to impress all Adjutants General with the sorrowful conviction that they know nothing. It is now nine in the evening. Ever since seven this morning I have been groaning under the terrors of Williams' last order. Confound him!

I am delighted to hear that everybody in Brooklyn is yielding to the soft seductions of matrimony. I wish I were married myself! I say so in a moment of utter despair, a prayer for annihilation being altogether too mild and peaceful for my state of mind. But I can't marry anybody here, and I forgot to do it when at home, so I

shall have to wait another six months, till I see a white lady again.

Now, Kate, don't you ever say again that you write only to get my answer, for it is very naughty in you. You have been specially charged by Providence with the highly important duty of solacing and comforting Me, in the trials and troubles of the campaign. If you neglect to write me long, affectionate and most amusing letters, I immediately droop, like some delicate flower, I immediately call for brandy with no water, I faint away, and *where*, where is the hope of the country?

Perhaps you will think I never wrote more nonsense in my life. You don't know. You never saw one of my love letters. Pray that you never may.

Thine,

F. A. W.

July and August, 1862, were spent, save for the seven days' leave, at Harrison's Landing. On August 11th, as already noted, Walker was promoted to the rank of major and was soon transferred, with Couch, to the Second Corps.

From the "History of the Second Army Corps," it is easy to trace Walker's movements during that winter of 1862-3:

Peremptory orders from Washington for the evacuation of the Peninsula [he states in that History (p. 89)] compelled General McClellan to withdraw the troops engaged in this expedition, and, after such delay as was necessarily involved in the movement of the sick, the trains and the artillery, to retreat with his whole force down the Peninsula, up which the army had marched full of hope and courage three months before . . . The Second Corps . . . arrived at Acquia Creek on the 26th of August.

There followed immediately the "Second Bull Run," in which the Second Corps was not engaged, and that

disaster was succeeded by anxious days, "almost of panic," in Washington. To save the situation by intercepting Lee's probable invasion of Pennsylvania, the Corps was ordered to Frederick, Maryland, reaching there on September 13th. The description of the entry into that city is given in language characteristically picturesque.*

Probably no soldier who entered Frederick on the morning of the 13th will ever forget the cordial welcome with which the rescuing army was received by the loyal inhabitants. For five months the Second Corps had been upon the soil of Virginia, where every native white face was wrinkled with spite as the "invaders" passed; marching through or encamping in a region, which, to a Northern eye, was inconceivably desolate and forlorn, barren fields affording the only relief to the dreary continuity of tangled thickets and swampy bottoms. Here, in the rich valley of the Monocacy, shut in by low mountains of surpassing grace of outline, all nature was in bloom; the signs of comfort and opulence met the eye on every side; while, as the full brigades of Sumner, in perfect order and with all the pomp of war, with glittering staffs and proud commanders, old Sumner at the head, pressed through the quaint and beautiful town, the streets resounded with applause, and from balcony and window fair faces smiled, and handkerchiefs and scarfs waved to greet the army of the Union. Whether the ancient and apocryphal Barbara Frietchie had sufficiently recovered from the sentimental shock of a poetical shower of imaginary musket-balls to appear again on this occasion, may be doubted; but many an honest and many a fair countenance of patriot man and patriot woman looked out upon the brave array of Sumner's corps with smiles and tears of gratitude and joy.

On the 17th of September began the disastrous battle of Antietam. Thereafter the Second Corps remained for several weeks at Bolivar Heights, with headquar-

* Hist. 2d Army Corps, p. 93.

ters at Harper's Ferry. On October 9th, General Couch, to whose staff Walker was still attached, was put in command of the Corps, and, on the 7th of November, the momentous transfer of the Army of the Potomac from McClellan to Burnside took place. Describing McClellan's final review, Walker writes:

When the chief had passed out of sight, the romance of war was over for the Second Corps.

CHAPTER IV

FROM MARYE'S HEIGHTS TO PETERSBURG

BURNSIDE was under enormous pressure from Washington to "do something" and to do it quickly. Therefore he undertook, seemingly against his better judgment and apparently without much plan or purpose, "that series of operations, beginning on the night of the 10th" [December, 1862], "culminating on the afternoon of the 13th, and concluding during the night of the 15th which is embraced in the term, the Battle of Fredericksburg." *

Writing of that battle, Walker declares (p. 145):

The failure arose from the utter absence of anything like a plan of operations. The troops were thrown over the [Rappahannock] river in a sort of blind hope that so splendid an army, in such overpowering numbers, would somehow achieve a victory. General Burnside did, indeed, after the battle, attempt to state what he doubtless believed to have been a plan; but this does not consist with his actual orders prior to the action, nor do those orders consist with each other.

I think I ought to put upon record [Walker writes in one of his narratives (and the story, somewhat varied in phrasing, appears in the History of the Second Army Corps, p. 155)], the incidents of a visit to Burnside on the 12th of December, the day after we forced a crossing into the city, and the day before the terrible assault on Marye's Heights.

I was sent back across the river by Gen. Couch, on the forenoon of the day mentioned, to report on certain points

* Hist. 2d Army Corps, p. 143.

to Gen. Sumner, commanding the right grand division, whose headquarters were at the Phillips house. On my arrival Colonel Joe Taylor, Sumner's adjutant general, at once took me up to the room, on the second floor, where Sumner was. Burnside, Sumner and Hooker were sitting around a table. . . . Having bowed to the other generals, I presented myself to Gen. Sumner. I said I had come to report from Gen. Couch; whereupon that officer said, "Report directly to the Commander-in-Chief." And so I turned and thereafter spoke to Burnside.

The first thing I mentioned was that Gen. Couch instructed me to say that he was satisfied the enemy meant to make their stand upon those hills. Oddly enough it was not Burnside who replied to this message, but Sumner himself, who broke in with the remark, in a slighting tone of voice, "Oh, it's just possible." This, taken in connection with the occupation of the three officers at the time I entered, showed clearly enough that Burnside's infatuation regarding the flight of Lee was at least shared by Sumner. . . .

Continuing my message from Couch, I said that that general desired me to say that, while not in possession of the ground beyond the town, he was yet convinced, from the reports of citizens, contrabands and deserters, that there was a deep trench or canal around the rear of Fredericksburg, which would prove a serious obstacle to troops debouching from the town to attack the heights. Then it was Burnside who spoke; and he spoke with a feeling and intentness such as I do not remember ever before or afterwards to have seen him exhibit. "Tell General Couch," he said, courteously but very emphatically, "that he must be mistaken. I stopped at Fredericksburg last August" (I think it was) "on my way up from North Carolina; and had my troops encamped beyond the town. I rode all over the plain; and could not have failed to note it if such a thing existed. Tell Gen. Couch he must be mistaken."

The infatuation regarding Lee's flight upon the very appearance of our great and gallant army; and the wrath-

ful disinclination to investigate the report as to the canal crossing the plain, were, the next day, to become the cause of slaughter rarely equalled in the history of the war, for its bloodiness or its senselessness.

The ill-advised, practically hopeless assault on Marye's Heights, just outside Fredericksburg, an attack on "a strong position, thoroughly fortified, bristling with eighty guns, and held by forty thousand infantry," brought terrible losses to the Union troops. Hooker argued in vain with Burnside to stop this slaughter, Couch argued in vain with Hooker to have the assault of the Second Corps transferred, if it must be continued, far to the right.

To this suggestion, writes Walker,* Hooker in terribly bad temper, as was not unnatural, replied contemptuously and insolently. Stung by the insult, broken-hearted at the defeat of his corps and the massacre of his gallant soldiers . . . Couch turned abruptly away and dashed up the road. . . .

Putting spurs to his horse he proceeded to the point where Brooke, with his companions, partially sheltered behind the group of buildings, still held the extreme advance. Sitting here, on horseback, at easy pistol-range from the enemy's line, Couch surveyed the field from right to left, conversed a moment with Brooke, who begged and prayed him to retire, and then, turning to the left, rode down the line of his corps! A strange review it is surely! There, prone on the ground, the living mingled with the dead, are three or four thousand men, the remains of twenty regiments. The line zigzags as the fortunes of the several charges have left it, at some points fifty, at others one hundred or two hundred, yards from the stone wall. Except for those who cluster for shelter at the rear of the few huts or houses on the line, not a man is erect. With rifle or sword tightly clutched, the private and the colonel alike lie hugging the ground; while now

* Hist. 2d Army Corps, p. 179.

and then strange shelter is found. Here is a horse of the staff, which has fallen near the point of the farthest advance; it lies with its back to the enemy, and between its legs is a very nest of men, who press their heads against its belly. Here two or three stones have been dragged together to make a pile somewhat bigger than a hat; there a lifeless body serves as a partial cover for the living. The firing has almost ceased. Enough of our men are sheltered behind the brick house, the huts, and the blacksmith's shop, to make it hot for anyone who raises his head above the wall; the Confederates have been gorged with slaughter, or are awaiting the appearance of fresh columns of assault; the artillery fire is completely mastered, so far as the infantry is concerned, by the nearness of the two lines, though the batteries still pound each other, and the shells fly thickly over the plain. It is down such a line that Couch, with his three companions, rides, that winter afternoon, in his strange review.

In a footnote to this graphic picture, Walker says:

In addition to an officer of his own staff, General Couch was accompanied by Lieutenant Alonzo H. Cushing, afterward killed at Gettysburg, then of General Sumner's staff, and a very brave and intelligent orderly named Long. General Couch afterward stated that he did not wish anyone to follow him, and was not aware until he reached Colonel Brooke's position that anyone had done so.

The "officer of his own staff" who kept close beside Couch in this grewsome and perilous journey was Major Walker.

How serious were the results of Fredericksburg, Walker points out in summarizing the losses: *

Many regiments had left one-half their numbers in front of the stone wall. But the loss was even greater than figures could show. Of the four thousand who had fallen, at least three thousand belonged to regiments that might already be called, in every sense of the term, vet-

* Hist. 2d Army Corps, p. 195.

eran. More than two thousand were of the choicest flower of the Second Corps as it came from the Peninsula. The blood of these men was precious—not more precious, indeed, to friends and relatives than the blood of the rawest recruits then coming into the field—but infinitely precious to the country, for every drop had in it the ineffable savor of victory.

General Longstreet, of the Confederate Army, states in his report upon Fredericksburg, that:

the gaps made in the advancing lines of the Second Corps could be seen at the distance of a mile.

Walker was spared the miseries of the "Mud Campaign" of January, 1863, for the Second Corps was held inactive for weeks on the hither bank of the Rappahannock, to which it had been withdrawn. Burnside was, of course, soon replaced, and Hooker became Commander of the Army of the Potomac. Meanwhile, on the 1st of January, 1863, a distinct staff for the Second Army Corps, as provided for in an Act of Congress, had been appointed. This staff was identical in personnel with that which had served under Couch since his accession to the command of the Second, in October, 1862. It included, still as Assistant Adjutant General, Francis A. Walker, now promoted to the rank of Lieutenant-Colonel. In the Loyal Legion obituary of General Walker is given the following comprehensive summary of his new duties:

The adjutant of a corps commander is his ear and voice. It is he who collects, collates and compares the statistics of numbers from day to day, and detects the increase or diminution of the fighting strength of the corps, intercepts and digests the countless communications which ascend from twenty thousand men to their commander, conducts all correspondence and frames all orders. Even in the saddle, under the enemy's fire, he must, with nerves under control and patience unruffled, catch

the spirit of commands from a general, sometimes, perhaps, inflamed with the ardor of combat, or oppressed with the weight of disaster, and translate them into clear, courteous and orderly phrase on the instant, for transmission to subordinate commanders, and withal he must, in time of need, ride the field, and penetrate the battle like the youngest aide-de-camp. All these things this volunteer of twenty-two did as if he had been trained to the duties all his life.

How admirably all this training in exact compilation, in rapidity of judgment, in cool weighing of words, in viewing great situations with the seeing eye of the responsible head, was to serve this "volunteer of twenty-two" during the remaining thirty-five years of his strenuous career, will abundantly appear.

In May, 1863, the Second Army Corps was "summoned to the great battle" of Chancellorsville, waged but a few miles from the scene of Fredericksburg. After three days of desperate fighting, the "Army of the Potomac, foiled and humiliated, recrossed the Rappahannock and returned to its camps."

Walker was not a participant in that unhappy retreat, for on the evening of the first day of Chancellorsville, May 1, 1863, he suffered serious injury, which he thus describes:

General Couch rode down the road towards Fredericksburg, where some artillery-firing, from the Confederate lines on the higher ground, was going on. . . . The shells fell rather steadily on our left, at a short distance away in the woods. Nothing had been said for a few minutes when I remarked, "The enemy evidently think they have got the range of the road." Hardly were the words out of my mouth when a shell fell about an equal distance on the other side, bringing it pretty close to the rear of Sykes' division. Thereupon I remarked, "The next will come down the road." And sure enough it did. . . .

The shot burst directly in front of the staff, nobody except myself getting any part of it. As I recovered consciousness, after a second of time, the first thought which came vaguely into my mind was that some one had been hurt. I have been told that this objectivity is a characteristic, or, at least, a common feature, of injuries strongly affecting the nervous system. An instant later I said, "General, I think I am hurt," and, in saying so, passed my right hand up to the left side of my neck, where I had become conscious of a blow. "Yes," replied the General, "I can see the blood on your hand." This was the first intimation which had come to me that my left hand had been broken in pieces by three fragments of the shell, while my neck had received the fourth. . . .

I was taken off my horse by my comrades and the orderlies, and placed under a tree. . . . Soon a voice broke in upon my dazed senses and announced the arrival of Dr. Ramsey, the surgeon of the 11th. Feeling my pulse and seeing that I was low and sinking from the shock, Ramsey took out a flask of whiskey, and, pressing it to my lips, said in an imperative tone, "Drink!" I took a swallow or so, supposing that that was all which could be asked; but the Doctor kept saying in a sharp voice, "Drink, drink, drink all you can!" The result was that I did drink all I could; and in consequence became pretty boozy. After I had been carried back in the ambulance to headquarters, I rather amused the staff by my patriotic remarks and the scorn with which I greeted the suggestion that my hand was of any consequence at all. . . .

I was put into an ambulance and sent across the river at the United States ford. How many times I became unconscious during the trip, I do not know. I suspect I swooned away several times, for I had more than once the sensations of consciousness regained. Arriving late at night at the hospital, I was given a mattress, where I remained until the morning of the third day's battle, when I was sent away to the hospital at Potomac Creek.

Of his journey home, in charge of his colored servant, David, Walker gives an interesting account in one of his manuscript narratives, from which the following is taken:

When we got into the sleeping car, there was a row over David's presence as my attendant, raised by the Secesh conductor. . . . I was not in a condition at that time to fight over the matter, as my hand was lashed to a part of the cover of a cracker box, and the inflammation was so terrific that a bag of ice, placed upon it, went off in steam without wetting the bandages; but my fellow passengers were very indignant, and David was at last made secure in his position, in spite of the conductor.

Arriving in New York, a gentleman, who had been very attentive on the train, got a carriage and took David and myself to the Astor House. . . . I secured a room, up under the leads, without any fire, the bed not made, and everything as forlorn as it possibly could be. David having put me to bed, I entrusted him with three errands, one to order my breakfast prepared and sent up at the earliest possible moment, for I was completely faint and worn out; the second to go for a surgeon; the third, to take a note to my cousins, the Carletons, on 23d St. . . .

In due time the surgeon arrived, a noble fellow, who dressed my wounds with great care and kindness. . . . As the day wore on, my cousin kindly proposed to take me on to Boston by the Sound boat. . . . We had a safe and easy journey to Fall River; and early in the morning of the 7th of May arrived at the Tremont House, where my father met me, and I was speedily taken under care.

At the Massachusetts Institute of Technology on April 1, 1896, was shown an X-ray of this shattered left hand, one of the earliest radiographs taken in this country. As revealed by this photograph,

the four wrist bones were shattered by the shell. In the course of time they grew together and the four bones

nearer the fingers were pushed forward and also grew together. The little finger was also very much shattered.

Concerning this radiograph Professor Charles L. Norton, who took it, writes:

One of the incidents connected with the taking of the picture is very clear in my recollection. The General disturbed one of our wires in some way and it fell down on the back of his hand causing considerable discharge from the induction coil. We noticed the change in the pitch of the discharge and looked to see what was the matter. He was making rather wry faces about it but held his hand absolutely still, in spite of the repeated shocks, without complaint. Professor Cross remarked to him that there were times in civil life when the discipline of a soldier showed itself. I think the black spot on this negative is where the induction coil discharge from the General's hand passed down into the film of the plate.

It was August before the doctors would permit Colonel Walker to return to active duty; therefore, to his life-long regret, he missed the three strenuous days at Gettysburg where the Second Corps, Couch having been retired at his own request from the command, fought so magnificently under his successor, Hancock.

On reaching Virginia, Walker found his military associates quietly resting on the banks of the Rappahannock. On the 12th of September, as noted in the History of the Second Corps (p. 318), there was

a forward movement of the Army of the Potomac (to the Rapidan), in which the Second Corps and the Cavalry took the lead. . . . Nothing occurred of special interest until the 5th of October, when the Second Corps was relieved by the Sixth, in its position along the Rapidan, and was withdrawn the next day to Culpeper, where it remained until the 10th.

During the next four days the Corps, first at Auburn and then at Bristoe Station, not only met with such fatigue of marching and counter-marching as was new even to this seasoned command, but also found itself threatened with annihilation. As Walker sums it up: *

Leaving Stony Mountain at three o'clock on the morning of the 11th [Oct., 1863], the corps had marched, through Culpeper, across the Rappahannock, to Bealton; thence, on a false report, back, on the 12th, to Brandy Station; from which it moved again, at ten o'clock in the evening through Bealton, to Fayetteville; retracing its steps, after a short hour's halt, to march through Bealton, to Auburn; bivouacking from nine o'clock in the evening of the 13th till between three and four in the morning of the 14th, when it again took the route, skirmishing for hours in and around Auburn and on the road to Catlett's and in the afternoon fighting the battle at Bristoe; to resume the march, as soon as night had fairly fallen; to halt only on Bull Run, between three and four of the morning of the 15th.

If it had been asked how it happened that the Second Corps escaped annihilation on the 14th of October, it can only be answered that it was because the Confederates were slower than they often showed themselves on occasions of equal importance.

Lee soon withdrew his army behind the Rapidan and (p. 367) "the Second Corps went into camp in the vicinity of Berry Hill. . . . Here the troops rested until the 24th of November."

To this period belongs the following letter to his future sister-in-law, Miss Lucy Stoughton:

Headquarters 2nd Corps
Nov. 12, 1863.

I learned through E—— that you desired the Autograph of our present Commander so I find great pleasure in offering you this one, and I enclose several of our real

* Hist. 2d Army Corps, p. 363.

Commander, Maj. Gen. Hancock, one of the most brilliant Generals of the army. I send besides a few I happen to have on hand, only regretting that I have not taken pains to collect them since I have been in the Adjutant General's Department.

I wish I could send you the autograph of the 2nd Corps! but *it makes its mark*, it does not write. It makes its mark with the sword and the letters are in blood.

Excuse the digression.

We aren't doing much just now, but hope in a few days to satisfy the public taste with our usual Fall Spectacle—forty per cent of us knocked over.

The Second Corps remained inactive for weeks except for taking part in what Walker denominates "the pitiful Mine Run Expedition," and in a fruitless engagement, in February, at Morton's Ford. Meanwhile the young adjutant general went North on leave, for a "delightful visit," though how long the furlough extended does not appear.

By the 31st of March the corps had been extensively reorganized, its aggregate force having been increased to over 43,000 men, and on March 26, 1864, Grant took command of the "Army of the United States," establishing his headquarters at Culpeper. Walker's first meeting with the new commander-in-chief presents that taciturn hero in an unusual light:

I saw General Grant first at Meade's headquarters, one evening during his first visit to the Army of the Potomac. . . . G. K. Warren was then commanding our corps, in Hancock's absence; and he invited me to go with him to call upon the new Commander-in-Chief.

The large tent in which we found General Grant was well filled with commanding and staff officers. Among them were several who had known Grant intimately in the old army. There was little ceremony. . . .

To my surprise, I found General Grant an exceedingly good and ready talker. Some of his old army comrades kept stirring him up with questions and allusions which brought him out strongly. Little of what he said, however, do I remember, except that towards the close of our stay, he gave a picturesque and even brilliant account of the battle of Chattanooga the preceding November, in which he defeated Bragg. He told the story of the action extending over twelve or fourteen miles of country, as he saw it from his headquarters on Orchard Knob. No professional *raconteur* could have done it better.

On April 18, 1864, he wrote again to Miss Stoughton:

I hope you are very well at the Falls and I wish I were there myself. The fact is I feel that it is just about time for me to be going home again, and the only trouble is that my immediate commanders don't see it in that light. It would be very nice indeed to be in some civilized place again after three months of the utter barbarism of camp life in Virginia.

I suppose we shall begin our campaign in a week or two, and then you will find the newspapers interesting. Something will break before we give up in this trial for Richmond.

A great Review of the 6th Corps to-day—but *the great* Review is yet to come, of course I mean the review of the 2nd. I wish dear Lucy you could be here to see it, over twenty thousand veterans all on one field with music and banners and cannon and two thousand horsemen. My! it is quite grand even for an old soldier to see.

Soon followed, on May 5-7, "the jungle fighting," as Walker calls it, in the Wilderness, with futile losses to the Second Corps of over 5,000. This was followed by Todd's Tavern, "which was never fought"; the "close and bloody" battle, to use Hancock's phrase, of the Po River at which was abandoned "the

first gun ever lost by the Second Corps"; and the 12th of May attack on the "Salient," resulting, Walker writes, in a conflict which was "the closest and fiercest of the War,"* where the Second Corps lost over 2,000 men. All this preliminary fighting led up to that terrible succession of battles: Spottsylvania, North Anna, Totopotomoy and Cold Harbor, which covered the period, May 13 to June 12, 1864, and which practically destroyed, through frightful loss of seasoned officers and men, the Second Corps. General Walker says: †

I have hesitated long before writing the melancholy words of General Morgan: "The Second Corps here received a mortal blow, and never again was the same body of men." General Morgan goes on to say that between the Rapidan and the Chickahominy, a period of about thirty days, the losses of the corps had averaged over four hundred daily. "It was not in numbers only that the loss was so grievously felt. Between those rivers the corps had lost terribly in its leaders: the men whose presence and example were worth many thousand men."

It (the Second Corps) had wrested twenty-five cannon from the enemy; it had lost one, disabled. It had taken more than eighty flags in battle; it had yielded perhaps half a dozen, in the Wilderness, at Spottsylvania, and at Cold Harbor. Its 'missing' in all its terrible battles, had been about five thousand; it had captured over eleven thousand Confederates in action. It had not been more impetuous in assault than steady, enduring, and resourceful in disaster and defeat. In the long column which wound its way, in the darkness, out of the intrenchments at Cold Harbor, on the 12th of June, 1864, and took the road to the Chickahominy, little remained of the divisions that had crossed that river, on the 31st of May, 1862, to the rescue of the broken left wing; and the historian feels that, as he concludes the story of Cold Harbor,

* Hist. 2d Army Corps, p. 472.

† Hist. 2d Army Corps, p. 522.

he is, in a sense, writing the epitaph of the Second Corps.

Owing to a painful injury to his knee, due to his horse having stumbled at the end of too long a jump, Walker "lost the great battle of the 12th" (the Salient), "but got back in time to take part in the actions of May 18th and 19th."

From June 13 to near the end of that month, the Second Corps—and consequently Col. Walker—were moving across to Petersburg and taking part in vain assaults upon its extended line of entrenchments. In one of his narratives, Walker gives a characteristic picture of himself:

During Meade's and Grant's movement across the James, after the terrible affair at Cold Harbor, the Second Corps was put in advance; and very strict orders were given for stripping the troops to the last degree, so that they should be able to march as fast and as freely as possible. The orders around Headquarters were peremptory, to the effect that no wagons should cross with the Corps at Willcox's Landing; all were to go with the general train of the army below. Orders or no orders, most of the officers at Headquarters saw themselves taken care of; and I do not think General Hancock looked very closely to see where his own wagon was.

Unfortunately at this time, as it proved, I messed with the Chief Quartermaster and the Chief Commissary, Colonels Batchelder and Smith, both of whom went with the trains; and, as I never was worth a cent in looking out for myself on such occasions, I had a bad three days of it. My servant, David Allen, seemed to get along somehow with the other boys around Headquarters; but I unexpectedly found myself without any mess arrangements or any store of food or supplies. I could not dig, to beg I was ashamed; so I took it out mainly in going without my rations. Now and then I was able to pick up something.

Of course, if I had made the situation known, I would have been invited to one of the other messes of the staff; but I did not choose to do this, and so I went on with a minimum of solid or liquid refreshment.

On the morning of the 16th of June, we were getting into position for an attack on the Petersburg redoubts. Gen. Meade had come up, with a large staff, to confer with Hancock. The two generals occupied an ambulance under a tree, while Army and Second Corps staffs mingled together and sat around under the bushes. I found myself beside Capt. Mason of Meade's staff. I do not remember how it came about; but, in speaking of the movement, I referred to it as a very severe one, and added, "in the last sixty hours, I have slept three hours, and eaten three meals."

At this, somewhat to my confusion, Capt. Mason jumped up and said, "My God, Walker, that must not be! I have got a sandwich in my saddle-bags which you shall have!" I caught him by the tails of his coat and tried to pull him down, saying, "I don't want your sandwich, Mason; and I won't take it. If I had known you had one, I would not have made the remark I did." "No, no," he said, "there is no reason why you should not have it. I have had a good breakfast and am going home to a good dinner; and I insist upon your taking it." So, in spite of my remonstrances, he went up to where his horse was saddled and brought back a real sandwich—not something made of one slice of bread, cut in two and doubled over—but comprising two large slices of bread, each intact, and between them a liberal supply of cold roast beef.

I was, to tell the truth, enormously hungry, and longed to get to eating; but it seemed so like a pig to sulk there under a bush, the only person so engaged, that, from mere shamefacedness, I could not bring myself to do it. I thought I saw an excellent opportunity to at least acquit myself of the formal obligation to share the meal with some one; so I stepped up to the ambulance where the generals were and said, "Gen. Meade, would you like half a

sandwich?" The General looked over his eyeglasses, and said in the most genial voice, "Why, yes, Colonel, I shall be very happy, indeed!" So I broke off one-half the sandwich and gave it to him. Then it seemed as though I could not do less than say, "Gen. Hancock, would you not like half a sandwich?" And he answered, "Why, yes, Colonel, thank you very much." And I sat down under the bushes and licked my fingers for my share.

CHAPTER V

CAPTURE, ESCAPE AND RECAPTURE

GRANT'S aim at Petersburg, as is well known, was to keep hammering, now here, now there, at the Confederate line until he should develop or discover a weak place through which he might drive his forces, roll up the enemy lines, and thus break down what was in effect the last defence of Richmond. Therefore, he moved his troops backward and forward, seeking both to find an opening and to confuse the enemy into leaving some vital point uncovered. A major factor in the manœuvres before Petersburg was, of course, the projected explosion of Burnside's famous mine which, to quote Walker, resulted in "the wretched fiasco of the 30th of July."

After a fruitless expedition to Deep Bottom, the Second Corps, on August 20th, was ordered to return to its base before Petersburg. It was not permitted to do so unmolested, but was compelled to fight the battle of Reams' Station at which,

on the 25th of August, 1864, Gen. Hancock, with two small divisions of his depleted corps, and Gregg's Cavalry, was badly beaten by a Confederate force under Lt. Gen. A. P. Hill.

Narrating the experiences of that day, Walker continues:

Just about dark came a message from Gen. Meade, directing Hancock's withdrawal, and incidentally stating the position of the other corps. After reading this, Han-

cock handed it to me and directed me to find Gens. Gibbon and Miles, and request them to throw out strong bodies of skirmishers, in order to cover the anticipated retreat. I at once rode forward, having no knowledge of the present position of either of these officers, but expecting to find my way along the line until I found them. It was not known at headquarters that a gap existed through which one might ride, without challenge, into the enemy's hands.

On the way out, I met Col. Wm. P. Wilson, one of the best men at corps headquarters, and asked him where I should find Gibbon. He said he had just left that officer, and told me to go straight on, by the road I was taking. This, to the best of my knowledge, I did; but it is probable there was a forking of the road which, in the dark, I did not observe. After riding a short distance, I was accosted by an officer on the road, who advised me to go no further; but Wilson's assurance, together with the impression the man's manner made upon me, to the effect that he had left the line himself and, like all men in such a case, was ready to advise others to stay back, caused me to disregard the warning rather impatiently and go on. . . .

Riding still toward the railroad, in the confident expectation of coming upon either the line of battle or the line of skirmishers, I received the challenge, "Who goes there?" I replied, "A friend." Hardly were the words spoken, when I was surrounded by six or eight men, who laid hands upon me and my horse and requested me to dismount. They had already captured, I afterwards learned, others in this way and were lying in wait for any unfortunate traveller. I was speedily disembarassed of my sword and pistol (which, by the way, did not belong to me but to Capt. Murdock, of the 111th of New York), and was sent under escort to the Confederate rear, through the railroad cut. On the way, the guard informed me that I had been captured by a picket of the 11th Georgia, and that he was taking me to Gen. G. T. Anderson, formerly colonel of that regiment, then com-

manding a Brigade in Field's Division, Longstreet's Corps. To make it interesting, he remarked, "We have just taken one of your brigadiers." I replied rather slightly, "I guess not," to which he rejoined, "Oh, yes, I saw him myself." It was not worth while to discuss the matter with the man; but I knew that all our general officers engaged at Reams' Station were safe at the conclusion of the fight, and it was not likely that any of them had been captured since.

After a short walk, we found Gen. Anderson, who was very courteous, spoke of having known Hancock well in the old army, and said everything that was civil. During the course of our brief conversation he enquired, "Is there a General C—— in your army?" The answer came instantly, "No," but then flashed across my mind the remark of the guard, respecting the capture of a general officer, and, seeing that there was some mystery in the matter, and not wishing to meddle in it, I added, "yes, there is a Gen. C—— in our army." So there was—in Missouri. "Well," said Gen. Anderson, "we have captured him." "Ah," I said; and did not pursue the thing further, being completely in the dark. In a few moments the guard was directed to carry me on to the prisoners' camp, and upon this occurred my first misfortune since the capture.

In plain truth, it had not for a moment suggested itself to me that I was to go to Richmond. I had, as a staff officer, seen too many times how prisoners are guarded in the field, not to be aware that any man, any one man at any rate, can get away from a body of prisoners, if he simply has the enterprise to attempt it, and is willing to take the chance of a stray shot or two. . . . I had, therefore, up to this time, looked upon my capture as meaning simply the loss of my horse and hardware, and a probable day and night, or so, in the woods and swamps, without much of anything to eat, while making my way around, by the Jerusalem Road, to the rear of our lines. The idea of actually going to Richmond formed

no part of my thoughts during this somewhat exciting hour. In being taken back from the vicinity of Reams' Station, however, I was somewhat disappointed by finding that my guide took me along the left flank of the heavy Confederate column, which was marching back to the Petersburg lines. Had the Confederates not been moving at the moment, I should have had a soft thing of it. Even so, had we been on the other flank of the column, I should have been in the direction where our own troops lay, either at Reams' Station or at Warren's left, and would then have had a much better chance of getting into our lines if I could, for the moment, escape my guard.

He, himself, offered a most tempting object: a long-legged Georgian, with his gun over his right shoulder, while I was at his left elbow. There was not a step of the whole distance traversed, when, if I had chosen to put one foot in front of him and one hand at his back, he would not have gone to the ground without the possibility of a struggle. No man living could stand against such an assault, of which this one was as unsuspecting as ever Tarheel was, talking all the while in the most amicable way about matters and men. Being upon the wrong flank of the column, I felt that to attempt to escape him by a run would be foolish, as that would carry me distinctly away from my own people, perhaps into the Confederate cavalry, and only aggravate the situation. That I should be able to get away during the night, I did not doubt.

One thing that had troubled me since my capture was the fact that I had in my pocket, not only Gen. Meade's letter, which was of a somewhat important character, but also the army-countersign for the week. It was really a very stupid thing not to have searched me at Gen. Anderson's headquarters, as I was known to be the Adjutant General of a separate command; but this had not been done, and I took occasion of the communicativeness of my Southern friend to transfer the compromising papers from my breast-pocket to the side-pocket of my jacket where, with thumb and forefinger, I gradually chipped

them into pieces, which I dropped, little by little, along the way.

On arriving at the prisoners' camp, which was in an open field just off the road, shut-in, on three sides, by woods, the reason for the mysterious remarks about one of our brigadiers at once appeared. Lt. Col. C. of the — Mass. had surrendered himself as Gen. C—. His own explanation afterwards was that he had \$400, in green-backs, on his person, having just been paid off, and he was afraid the Confederates would "go through him," unless he put on the additional style he did. It was, however, an act distinctly contrary to military law, and not to be justified by any personal consideration; and, moreover, it was a little absurd in itself, since C— was a tiny bit of a chap. . . . A less imposing brigadier general could perhaps not be found; but the Confederates apparently did not suspect the fraud, and, thinking they had taken a real Yankee general, assigned him a special guard, consisting of an officer and six men; . . . and, finding they had captured Hancock's Adjutant General, conferred the undeserved and undesired honor of putting me under the same special guard. This was, indeed, a most annoying incident. But for C.'s folly, I should have had a fair chance, and, under the circumstances generally existing, ought to have had little difficulty in making a successful break, as, indeed, I afterwards did under less favorable conditions. But here we were with an officer and six men keeping solemn watch over our persons all night, the officer with a sword as long as a scythe, so full of the importance of his trust that he could not bear to sleep. So I resigned myself to circumstances, feeling sure that a more favorable opportunity could be found.

During the night a heavy thunderstorm, with a drenching down-pour, came on, possibly induced by the tremendous cannonade of the afternoon. I had no waistcoat on, and only a thin flannel sack; and, being without a blanket, was at once wet to the skin. In the morning we bestirred ourselves early, as soldiers are apt to do; but,

before the march to Petersburg began, I received a call from Major Gen. Cadmus M. Wilcox, of the Confederate army. Wilcox was exceedingly cordial. He had known Hancock intimately in the old army, and was very fond of him. He had also known Couch, on whose staff I had served, so we had plenty to talk about. He said that Lt. Gen. Hill would himself have called at the camp, on learning that Gen. Hancock's Adjutant General was there; but had received dispatches from Gen. Lee requesting him to return immediately to Petersburg. Gen. Hill had, however, asked him to say that he (Hill) had given orders to have me treated with the utmost consideration, because Gen. Hancock had been so kind to his soldiers when prisoners. Wilcox had brought some breakfast for me, unfortunately no coffee, but a good-sized "hunk" of bread and a slice of meat. He apologized for not making it larger, but said that they themselves were hard-up for food. The breakfast would have been ample enough but for the fact that I felt bound, in common decency, to share it with C—— and S——. No rations were issued to us that morning. . . . The General soon took his leave, and the column was turned over to Major Hunt, inspector-general of his staff, who was to take us to Petersburg.

C—— and myself had the place of honor at the head of the column, and the whole force of the special guard was deployed, in thorough style, for our safe conduct and custody. Two Confederates marched in front of us, two behind us, and one on each side of us; while the officer, detailed for this purpose, made the most of his proud position. The march was a very wearisome one. The route was long enough in itself; but, in order to prevent embarrassment on account of any possible advance of troops from our lines, we were sent around by the Dinwiddie Court House road. Having been a mounted officer for nearly three years, I had lost the habit of walking much, and an ordinary infantry-march would have been very laborious and painful; but at this time I was exceptionally disabled, having been sick the night before the

battle and under the doctor's care, taking powerful medicines; and, indeed, ought not to have gone into the fight at all. My feet became badly blistered, and the hot sun of the 26th of August smote upon the heads of all of us, as we toiled along the road from morning till night, with disagreeable force.

When we arrived in Petersburg, I still had my mind bent upon getting away; but by this time it had become a serious matter. . . . I had as little intention as ever of going to Richmond; but felt that the loss of opportunity at the prisoners' camp had been a great blow. By this time the brigadier farce had been played out. . . . So, when we got to Petersburg, the special guard was dissolved. No ceremonies attended the dissolution, though its brilliant career during its brief existence would have justified a very considerable celebration. The officer with the long sword simply took his men away, and C—— and S—— and myself sank back into the unregarded mass of privates, corporals, sergeants, lieutenants, captains, majors, and lieutenant-colonels who had been scooped-in so successfully by Gen. Hill, at Reams' Station.

Unfortunately the situation, that night, was not favorable for escape. We were placed, as it appeared, upon an island in the Appomattox. We were too closely guarded for a stroll, and had arrived after dark; but my comrades said that we were on an island, and I have always supposed that to be the case. I saw no chances worth taking. Again, a thunderstorm came up in the night, and those who were without blankets were drenched to the skin. Nothing had been given us to eat, on coming into camp, and I had now had nothing whatever since my breakfast of the 25th, except my share of Gen. Wilcox's bounty.

The next morning we were up betimes, and, after a long delay, each prisoner was served with a single slice of bread and a small piece of meat. Of course, we had no coffee. The Confederates themselves were very hard up in that respect. . . . At last we got off in a long column,

with a straggling line of guards along each flank. . . . I took advantage of being considerably lame and of having my feet all covered with blisters, to drop back a little along the path. No precise discipline was maintained, so that this was practicable, even the Confederate guards lengthening or shortening the intervals between them, according to their own notions. . . .

After a little while we turned on to the railroad from Petersburg to Richmond. . . . Like most Southern railroads, it was rudely constructed, and all grown up with bushes. Though not an arboriculturist or horticulturist, my attention very early became directed to this last feature of the situation. I felt sure that some of the bushes would be quite large enough to cover me, and sought my opportunity accordingly. I was standing just on the right flank of the column, close up to the sentinel in front of me and just so much further removed from the sentinel behind me. I had chosen my place on account of the little greater interval between the sentinels at this point. It was broad daylight, about 2 o'clock in the afternoon.

Having made up my mind I would get away, I looked for a companion. I knew nobody about me; but, as I glanced around, I met the eye of an officer whom I subsequently found to be Capt. James G. Tripp, of a New York regiment. . . . I could see the flash of intelligence in his eye, as I winked to him and nodded my head emphatically in the direction of the nearest bush. It was done in an instant. Nobody was thinking of it; nobody was looking out for it. I drew myself under cover of the bush, and was down on the ground in an instant. Tripp showed equal celerity, and there we lay curled-up, reasonably under cover. Possibly, if the guards had been looking for us, they might have seen something human hanging out on one side or the other. But the column went by, regardless of the loss it had sustained. At least 1200 of our own people passed us and 100 or 200 Confederates, and no one observed that we were missing. . . .

It was some minutes after the column had passed be-

fore the last footfall was heard upon the railroad ties. We gave them a few minutes more of grace and then stole together into the woods, which, at this point, came close up to the ditch below the railroad track. There was nothing to eat, and nothing to do, until dark. Tripp, recognizing my greater experience as a staff-officer, placed himself under my direction. My plan was that we should lie hidden until night fell, and then strike through fields and woods for the left bank of the Appomattox, with a view of swimming across into Gen. Ord's picket line. I had never been in that part of the country before; but I understood that Ord held our right, down the river toward City Point. . . . This being agreed upon, we talked together until the time came to move, which was half-past seven. . . .

We started through the woods; came here and there to open ground; were barked at by dogs; heard people talking, not far away; but, on the whole, progressed favorably, until we came to the bank of the Appomattox. One piece of good fortune was altogether unexpected and surprising. We encountered no Confederate pickets. The reason for this was that the left bank of the Appomattox at this point was so low . . . as to be flooded at every tide, making a very poor place for picket-posts. Consequently, the enemy kept their watch by means of boats in the river, slipping down at night and taking station at intervals sufficient for the purpose. . . .

Tripp and I had unfortunately reached the Appomattox much closer to Petersburg than we imagined. I supposed, from the general direction, as estimated in the dark, that we were well below the town. As the inhabitants did not show a light, lest it should draw a shot from our batteries, we received no suggestion from this source. And so we stood on the bank, unconscious of the proximity of the city, believing ourselves to be a good way down the river. The tide was well up, and we could stand in the dark on the hummocks a little out of the water; but whenever we attempted to step forward, we were just as

likely to come onto our knees or onto our faces as not. No wonder the Confederates did not keep any pickets there! Every now and then the low ground was crossed by levees, or raised banks, which were intended to protect certain estates from the tide. These were, in some cases, covered with hedges, which were difficult to struggle through. For myself, no inconsiderable part of my light-blue cavalryman's trousers was torn off in efforts to kick my way through, well up in the air, to the other side of the hedge. Still, it seemed that we ought to go well down the river, and consequently we pushed on, in spite of the obstacles. . . . At last, under my leadership, we came out on what seemed, in the dark, to be a little sharp point of land running into the river. Here we stopped. It was not a place for free conversation, because, upon our most favorable expectation, the opposite bank, which we could only see against the sky, was occupied by our own troops, who would inevitably regard any noise coming from where we stood as of Confederate origin, and might be tempted to fire in its direction.

When we had fairly come to a pause, I began to throw off my clothes. Tripp seized my arm and asked in a whisper, "What are you going to do?" I replied, "Going to swim." "But I can't swim," said Tripp, who, up to this time, had fallen in with the general plan proposed in the woods. My only answer was, "I can't swim, myself, very well; but I am not going to stand here and be retaken." And so I continued undressing, Tripp, who had nothing else to propose, standing silently by. It was a dark night without moon or stars. When I had reduced myself to the simplest possible terms, I took my pocket-book from the clothes I had dropped to the ground, and in the dark felt as well as I could for some large-sized greenbacks I had with me when taken. I had changed one greenback for Confederate money at Petersburg, in the morning, thinking it might be handy to have some of the stuff with me. In the position now reached, it seemed desirable that the small amount of baggage which I could carry

with me, namely, in my mouth, should be of the most valuable kind. Having satisfied myself, as well as I could through the ends of my fingers, that the three bills selected were the desirable greenbacks, I stowed them away as the sailor does his tobacco, and went forward into the water, leaving Tripp on the bank.

I was surprised and disturbed to find the water continuing so shallow. It was above my ankles or half way up to my knees, but did not deepen. This was not only puzzling, but disconcerting, particularly since it is impossible to wade in shallow water without making a noise, and, much as I hoped soon to make the acquaintance of Gen. Ord's troops, I did not desire to do so prematurely through the sense of sound alone. The water still continued shallow until I came to an explanation of the phenomenon, which was simply this: in order to confine the channel of the river so as to increase its depth, and thus enable vessels of considerable draft to go up to Petersburg, an artificial bank had been built up with hewn timbers. This obstacle I had now reached, and sat down upon the topmost beam, my feet in the water, looking across the stream.

The position was not an inviting one to a person not an expert swimmer. In fact, I had swum hardly at all since I was a boy of eleven. I was, moreover, pretty well fagged out with the exertions made thus far, and somewhat faint from lack of food. . . . I well remember how very lonesome I felt in the probability that I should never be accounted for, except in a very vague way. Once I let myself down a little into the water, in an idle fashion, to see if it was deep. Of course, it was very much deeper than I was tall, and I pulled myself back and again occupied myself with my musings. All this perhaps took about five minutes. Then I let myself down into the water and struck out for the opposite shore, but heading well up-stream. As near as I can conjecture, this must have been about eleven o'clock.

The struggle that ensued was really a painful one,

during which I passed, as distinctly as I ever shall, through "the valley of the shadow of death." Before I had been in the water a great while, I had practically no expectation of coming out. At last my strokes became feebler and feebler, and my arms "returned unto me void." I could not see how near the shore was; the darkness of the night and the height of the bluff gave no impression regarding that; and I ceased to expect to "arrive out" at all. It was very hard for me, even though I supposed the people on the other side were friends, to call out for help. At last, I said, in as near an ordinary voice as might be, "I wish some of you fellows on the bank would help me in. I don't seem to be getting along at all, myself." A voice answered, over, as it proved, very little water, "Come in, then!" to which I replied, as it did not seem to be a very satisfactory treatment of the subject, "I am doing all I can to come in, but I don't seem to get along very fast." So a minute passed. It might be longer, it might be shorter. I continued to struggle in the water and to make the motions of a swimmer. At last, in sheer despair, I laid my arms by my side and took the position of one who "treads water." To my amazement and delight, the toes of one of my feet, when the water was well up to my chin, struck ground. With renewed hope I threw myself forward, put both of my feet upon the bottom, and an instant later was upon the shore. . . . On this beach was an officer's post, and I was immediately surrounded by five or six men. The officer himself was not there, being in the fort, and a sergeant was in command.

I took my seat upon a big stone, which there was light enough at that distance to discern, and, partly from instinct and partly from being really in the greatest distress, hung my head and leaned forward, supporting my breast with my hands, my elbows on my knees, in an attitude of complete exhaustion. . . . The sergeant who stood over me repeated his question, two or three times, as to who I was; but I still maintained, without much deception, the attitude of a man completely exhausted. Turning my

head upward, I looked to see what sort of people my companions were. The first glance was discouraging. They wore hats. . . . The conviction came upon me that I had gone wrong.

Rising to my feet, with all the dignity an absolutely naked man can command, I said, "I guess I have got into the wrong box." "I guess you have," was the answer. Whereupon I said, "I am a federal officer." "I thought as much," said the sergeant. "Come up with me into the fort." . . .

I was received by the Colonel of the 51st North Carolina, which picketed that part of the line. He first asked me, after I had told him my name and rank, if any one had escaped with me. To which I replied, "Of course you do not expect me to answer that question." He was civil enough, and did not press the matter. He then asked at what point I crossed. I said, "From a little sharp point of land which, I should think, lies nearly opposite. In swimming, I headed up-stream, and think I came pretty nearly straight across." "Yes," he said, "I know the point;" and then he added a remark full of significance, "If you had allowed yourself to be carried down the stream, you would have gone into the hands of your own men. The nearest Federal picket-post is not thirty yards from my line. One of your fellows threw a stone into my picket-post this evening." "Yes, I heard it," was my reply, for as Tripp and I stood together on the bank during our brief colloquy, we heard a splash in the river. Tripp grasped my arm and whispered, "What is that?" I said, in an equally low voice, "One of our fellows chucking a stone into the river. Men are always doing that." The stone had been thrown by a Union picket at the Confederate picket-post into which I had swum. The pickets could not shoot at each other around the small bend in the stream; but they could chaff and annoy each other by heaving a stone up over the point. If only my ear had been educated to distinguish between the sound of a stone thrown by a Union man and one thrown by a follower of

Jefferson Davis, I might have been saved much annoyance.

The question immediately arises in the reader's mind why, knowing himself to be an indifferent swimmer at best and to be at that moment physically below par, Colonel Walker should have handicapped himself by swimming upstream when he might have floated down, steering himself towards the opposite bank, with comparatively little exertion; and especially why he should have done so when he realized that the farther he went down the river the greater were his chances of striking the Union, rather than the Confederate, line. The same question is asked, in an interesting memorandum, by Walker himself.

He answers this natural query, and holds himself up as an "awful example" in the field of psychology, by maintaining that he was completely dominated, that night, by the common saying that "to cross a river, one must head upstream." This is valid, of course, as he points out, if one wishes to reach a point exactly opposite; but upon this occasion he was under no such compulsion. Indeed, it was desirable for him to reach a point below rather than one opposite. Commenting on this unreasoning "domination of a proverb," Walker remarks:

I have often thought that this experience of mine is not without instruction regarding the degree to which mere traditional notions and prescriptions and proverbs act upon the minds of individuals and communities.

Resuming the narrative, Walker draws an amusing picture of himself, wrapped like an Indian in a hospitable blanket and extricating from his cheek the salvaged paper money, only to find that, instead of

twenty dollar greenbacks, he had preserved, with so much difficulty, three practically worthless Confederate notes! He then continues:

Like a good Yankee I was disposed to trade, and asked the Colonel if it were possible for him to let some man go across the river and get the clothes I had left on the opposite bank. The Colonel at once declared this inadmissible. He said, "You have already passed 200 feet (I think it was) below the last watch boat on the river, and your men are so near that anybody going over might draw their fire; I cannot have my men exposed for such an object." Hereupon a man standing near, perhaps the sergeant who brought me up from the beach, said there would be no danger; he could go up a little way, take a boat, slip quietly across, and would be glad to do it for the reward I offered. . . .

This man went and returned with my plunder, or such portions of it as he could find. . . . My flannel shirt did not appear, and the Colonel obtained for me, whether as his own contribution or not, I cannot say, a brown linen shirt, such as was much in request in the Confederate army. My cap, with visor and golden wreath gone, was also recovered; so that I had boots without stockings, a considerable part of a pair of trousers, a brown linen shirt, my sack coat, and what was left of a cap which, forty-eight hours before, had been the pride of the army. The boots could not be got on; they were thoroughly soaked in water and my feet by this time were raw almost over the whole soles, where the blisters had come off. I therefore held my boots, with my fingers through the straps.

The Colonel of the 51st, as I said, had been entirely civil throughout, and at this point sent me, under guard of two soldiers, to Gen. Clingman's headquarters. Clingman had been wounded in some of the earlier fights of the campaign, and his brigade was commanded by a Colonel, whose name I do not remember. His Adjutant General,

however, Capt. Edward White, was on duty, and took a very friendly interest in me. . . .

From Clingman's headquarters I was sent, under guard of the same two soldiers, but with Capt. White in charge, to Hoke's headquarters. Now by this time, I had ceased to feel a yearning toward further exertion, being entirely "dead beat," and so dizzy with fatigue and hunger that I could not put my foot straight down before me, but staggered much like a drunken man. . . . These Confederate generals seemed to have established their headquarters with a view to encouraging physical training on the part of their prisoners. I do not know how far it was before we got to Hoke's headquarters; it seemed miles.

At last we reached a house which we entered in the dark. . . . Now I had never had a favorable opinion of Hoke, from all that I had heard of him, and his reception of me was not of a character to create geniality between us. His questions were put in a way which I felt inclined to resent. To his question whether any one escaped with me, I replied as usual, "I suppose you do not expect me to answer that question." "I *do* expect you to answer it." "Very well; you will be disappointed. If anybody had escaped with me, it would not be my part to betray him." Whereupon Hoke muttered something and said, "Gen. Beauregard will attend to that matter." My evil passions being thoroughly aroused, I replied that if Gen. Beauregard asked the same question, he would get the same answer.

By this time all chance of hearty comradeship between myself and Gen. Hoke, if it ever had existed, had completely disappeared, and the conversation became very rusty. Irritated at what I said, Hoke said to one of his officers, "Major —, have this matter looked into in the morning, and find out whether this prisoner escaped by the negligence of his guards or by bribing them." This last suggestion was in the nature of intimidation, inasmuch as for a prisoner to bribe a sentinel is

a criminal offense, while to escape by his negligence is not. Feeling very cross, I anticipated the Major's reply and said, "Gen. Hoke, I will answer that question myself, if you will allow me. I escaped by the negligence of your guards; and I want to say that I have never in my life seen guard duty done so meanly as I have seen it done, today, by the men of your command. If they had guarded a little more as if they were soldiers, and treated us a little more as if we were gentlemen, we should have been much better pleased." By this time Gen. Hoke, finding that we never should be friends, asked Capt. White if he would have the great kindness, as long as he had started out and was equipped for the expedition, to take me to Gen. Beauregard's headquarters. Capt. White assented, though it was rather of a grind on him, and we went off.

Just how many hundred miles it was to Gen. Beauregard's headquarters, I suppose I shall never know. We crossed the Appomattox and came out on the other side at a great old manor-house, with a large yard in which tents were pitched. Into one of these, a hospital tent, Capt. White took me. . . . I found myself in the presence of three clerks of the adjutant general. The one of the three who appeared to be in charge received Capt. White's communication, and went away to report. He speedily came back.

It appeared that Col. Otey did not deem the tramp who had been brought in at this unseemly hour of the night worthy of the favor of his personal countenance, and the chief clerk proceeded to conduct the necessary inquiries regarding myself. It was altogether very amusing, even under such circumstances. The fellow was evidently of good family who had had himself detailed at headquarters, and was very full of his own importance. He sat down at the table, with an air which would have done justice to the trial of Warren Hastings, with all the beauty and chivalry of England looking on; squared his paper most accurately to the edge of the table; found his pen; and then, dipping it in the ink

and looking at me, asked in a somewhat pompous manner, "What is your name, sir?"

I had been sitting on a three-legged stool, watching the chap as he got ready for his grand function, and, when he did me the honor to turn his eyes upon me, I think he felt he had not made all the impression he should. Waiting just a moment longer, until the delay should be a little pronounced, and then looking him squarely in the face, I said, "Are you a commissioned officer?" No pricked bladder ever collapsed more quickly. The fellow might perhaps have bullied me, if Capt. White had not been present; but, as it was, he apparently knew enough of military matters to understand that I had attacked a vulnerable spot, and accordingly answered in a very different tone, "No, I am not exactly a commissioned officer" (but still as if he were almost one); then, recovering himself and his vocabulary, "Col. Otey has deputed me to take your name." "Oh, very well," said I, with the air of one giving his name at the door, "I have no objection to sending Col. Otey my name. Put it down, Lieut. Col. Francis A. Walker, Asst. Adj. General, Second Army Corps."

Evidently thinking that this was a case which Col. Otey must attend to in person, the chief clerk, leaving unsoiled the paper he had drawn up for examination, took down the simple legend dictated, and departed. In a few moments Col. Otey came in, a little cross at having been disturbed so unnecessarily. He was a handsome fellow, short and compact, but with an aristocratic head and face. . . . On entering, he did not greet me, or even look at me; but, after receiving Capt. White politely, his first words were, "Captain, have you any reason to suppose that this prisoner is what he pretends to be?" Capt. White seemed much shocked at the question being asked "to my face," and hesitated to answer. During this time I had risen rather abruptly from the stool and taken a step toward Col. Otey, not of course with any purpose of violence, but to express my indignation at such treatment

being accorded to one officer by another. Otey had marked my movement, and perhaps noting something like an angry flash in my eye, saw he had made a mistake. He immediately addressed me by my title, with some indifferent remark, which, however, served as a recognition of my position. Very little afterwards was required to be said on either side. Col. Otey asked the question which had been asked at every other place, regarding the escape of others with me, and receiving the same answer, appeared to be therewith content. He sat down and wrote an order of commitment to the Provost Marshal at Petersburg and bowed me out of the office, as I went on my way under the guard of my two sentinels. . . .

I was once more upon the march, recrossed the Appomattox, and again had reason to admire the magnificent distances with which the Cockade city was furnished forth. The provost marshal's office was in the second or some higher story of a business block in the town. When we reached the door, one of the sentinels sat down with me on the step, while the other went up with Col. Otey's letter. A fairer opportunity for getting away, at least from the immediate position, was never offered. The sentinel sat leisurely by me, his gun resting within the hollow of the elbow on my side. I could have taken the gun from him and shot or struck him down with it, or, being an expert boxer, could have disabled him by an unexpected blow. I looked at the man and fairly longed to do it; but by this time I was so utterly tired and exhausted that it seemed as though I could not get away. I had been dragged about for miles, and had been brought to the lowest stages of physical fatigue and nervous depression. Accordingly I checked all felonious instincts and awaited the appearance of the other sentinel.

He returned with the assistant provost-marshal, who accompanied us to the jail over what appeared to be a considerable distance, but probably was not. At his knock, the door was opened by the keeper of the jail, or the officer in command of the guard, who held a single

candle to light up the darkness of the hallway. My new friend, the assistant provost-marshal, appeared to be of a somewhat theatrical disposition. He turned me over to the officer with a little flourish; produced Col. Otey's letter; and then said, with a glance at myself which was intended to be very effective, "This prisoner has escaped once. Gen. Beauregard directs that you keep him very carefully, and, if he attempts to escape again," and here his voice sank to a whisper, "put a bullet through his head." The genial smile with which I received this suggestion seemed for the moment to confuse him and he cut short further remarks by taking his departure. The door on the right was opened before me, and I was allowed to throw myself down upon the floor and was locked up for the night. It was then, I suppose, somewhere about half past two in the morning, and I had been on the go most of the time since Tripp and myself took to the woods at half past seven.

I was awakened early next morning by the muster of the Confederate guard in the room where I was lying on the floor. . . . It did not occur to anybody to give me breakfast, though it was now full three days since I had breakfasted at the headquarters of the Second Corps on the morning of the 25th of August. During these three days I had had only the little I received from the kindly hands of Genl. Wilcox and the snack given to us the day before at Petersburg. . . . This might have made me gaunt and faint enough; but when it is considered that I had been sick at the outset and had been through a good deal of, to me, unaccustomed tramping, with the river business and all, it will not be a matter of surprise that I passed through a period of nervous horror such as I had never before and have never since experienced, the memories of which have always made it perfectly clear how one can be driven on, unwilling and vainly resisting, to suicide. I remember watching the bars at my window, and wondering whether I should hang myself from them. I had not the slightest wish or purpose to do so; but I

felt as if I were being pushed on by some unseen force in the direction of insanity.

This spell did not last more than a couple of hours, I think; and I had already partially recovered my normal state when a very welcome companion was brought to me, in the person of a negro soldier, who had been captured at the explosion of Burnside's mine. The jailer probably thrust him into my room, at this time, with a view to insulting me; but I never was so glad to see a human being in my life, and, from that time on, I picked up my fortitude rapidly.

About ten or half past, I was told that I was to be sent under guard to Richmond. How well I recall that pleasant Sunday morning! The bells were ringing and the people were on the street going to church, and I, the worst looking rowdy who had been seen there for a long time, Confederate troops not excepted, made my way through the city. I held my big boots by the strap with one finger, as my feet were too blistered to allow me to draw them on. . . . The spice had been completely taken out of me; I made no foolish efforts to escape as my guard was wide awake to look out for me. I owned myself beaten, and walked along like a lamb with a blue ribbon.

We went up the railroad, past the point where I had slipped away, and at the little shanty which served as a station, whom should I find but Tripp himself! He lay among the bushes all night; in the morning, feeling hungry, he went to a house and begged for food and was arrested as a matter of course. We went into the cars together, and my sentinel amused me with his conversation all the way up. I was especially interested to hear his references to Genl. Lee, whom he several times spoke of as "the most chieftainly-looking man" he ever saw. Upon arrival at the station at Richmond, I was escorted with a very gratifying degree of attention, both from my guard and from the inevitable small boy, to my future home on Carey St. [Libby Prison.] The first ceremony

was that of searching the person. This was very thorough and extended even to the soles of the feet. . . .

Colonel Walker continues with a detailed account of seeking his brother, who had been left for dead at Newmarket, May 15, 1864,* but who there was reason to believe might be at Libby Prison. He records with amusement the fact that his brother, a line officer, could hardly bring himself to believe that a staff officer could be a prisoner, the line imagining, apparently, that the "staff were invincible and immortal." From his brother he received the first real food that he had partaken of for several days. Resuming his story:

The section of the building farthest up the river was at that time used for the custody of officers, the lower floor being occupied by the office and guard room, while the upper two stories held about 200 commissioned officers, captured all the way from the Rapidan to the Appomattox. The warning given by the famous dig-out of the preceding winter had not been lost upon the Confeder-

* Camp, June 5

(To MISS L. STOUGHTON, from F. A. WALKER.)

You have probably seen in the papers that my dear and only brother was killed at Newmarket. He fell at the head of his company and in advance of the general line, while charging the enemy. My family are heartbroken. God pity & sustain them.

He was a gallant, generous, affectionate fellow, and nothing in this world can ever make up his loss.

North Brookfield, June 8, 1864

MY DEAR MISS STOUGHTON:

We have not heard from our son, Lt. Col. Walker, since the 25th and are very anxious about him. Supposing it is probable that you may have had more recent information from him, I write to ask that you will let us know how lately you have heard from him and how he was.

You have doubtless heard that our son Robert was killed at the battle of Newmarket last month.

Very sincerely yours,
AMASA WALKER.

MISS EXENE STOUGHTON,
Monticello, N. Y.

ates, and we were no longer in a position to go down to the cellar for mining operations. On my arrival, I was cordially greeted by scores of officers, from some of whom I had parted unceremoniously on the afternoon of the 27th; others of whom I had not seen for weeks or months. No one had observed Tripp and myself at the time we got away. They all declared that not until they got into prison was our absence noticed.

The officer highest in rank among those in quarters was Gen. Joseph Hayes of Boston, who had been taken while commanding the regular brigade of the 5th Corps, on the Weldon Railroad, a week or ten days previous. As I had no blankets, Gen. Hayes was good enough to take me as his chum, and we slept, rolled up together, for the next few weeks. . . . I remained in prison, first in "quarters" and then in the hospital, until somewhere about the 5th or 6th of October, when I was sent to Annapolis on parole.

In the diary of General William Francis Bartlett * is found the following:

Sunday, 28th. (Aug., 1864). Quiet, pleasant day. I live comparatively well here, and am quite comfortable. More prisoners came in to-day. Lieutenant-colonel Walker, Hancock's Assistant Adjutant-general, brought in recaptured, taken first at Reams' Station; got within thirty yards of our pickets on James, which he swam. Tells me Macy is badly hurt. I dreamt it a week ago. Patten lost a leg. Walker was dressed in rags and filth, but how undisguisable the gentleman really is. I was very much taken with him. He knew me, but I never had seen him.

This, according to Gen. Walker, was not the fact, for these afterwards close friends had met before at the "Wilderness."

Walker thus describes his experiences in Libby and his narrow escape from being sent to Andersonville:

* Memoir by Palfrey, p. 131.

When I entered Libby prison, I was in a pretty poor state of health, owing to illness before I was taken, and to exertions and exposures. . . . What with the diet of the Hotel Libby, the absence of any bed softer than a hard pine floor, and the lack of anything to do, I ran down rapidly, so that, in two or three weeks, I could not get to my feet without being helped up. Gen. Joseph Hayes, . . . whom the Confederates denominated the handsomest Yankee who had ever entered Richmond—had been exceedingly kind to me; taking me into his mess; making me share his blankets at night, since I had none; and in every way acting most handsomely.

For some days the General had been urgent that I should go to the hospital on account of my condition; but I turned the matter off, generally with some trifling word. The fact was that, while it was generally considered a great thing to go to the hospital, I had the deepest aversion to doing so. It seemed certain that before long we should all, sick or well, be drafted away to Salisbury or Andersonville, and I had so many good friends in "Quarters" that I was reluctant to part from them.

My only brother, who had been in the hospital when I arrived, was now on parole. I had not been allowed to see him, when he was about to go, though I made an urgent request of Major Turner to that effect; but, by pressing my head and face against the bars of the prison so hard that the iron made long parallel marks across my cheek and forehead, I could see, looking along the side of the prison, one figure after another, walking out of the hospital and climbing or being lifted into the ambulances, though I could not tell which was my brother, and which a stranger. So, the only one I cared for in the hospital being gone, I clung to the companionship of the men who remained in "Quarters," at least a third of whom were of the gallant Second Corps. . . .

One day I was sitting at table, playing chess with another officer, with a set of chessmen which had been whittled out of wood or bone by some ingenious prisoner

. . . when I felt a hand laid upon my shoulder. Looking up I saw it was Gen. Hayes, who said:

“Col. Walker, I wish you would see the surgeon.”

As I did not myself wish to see the surgeon, I sought to turn the matter off by some jesting remark, when, to my utter surprise, I heard Gen. Hayes exclaim,

“Well, by God, sir, you ought to!”

I had heard a good deal of swearing in the army without being particularly affected by it; but this shocked me, because Gen. Hayes had invariably displayed an exquisite courtesy. It could, therefore, only mean that he was deeply interested in his errand and perhaps hurt at my seeming indifference to his kindness. I rose at once and said,

“Why, General, if you feel so, I will see the surgeon.”

Before three steps were taken the doctor was encountered, looking for me, Gen. Hayes evidently having set him on my track. A brief inquiry, a single pinch of my emaciated arm, the counting of a few pulsations, determined my fate, and I was peremptorily sent down to the hospital. A few nights afterwards, as I lay between asleep and awake, I became conscious of a sort of rushing sound which I could not at all make out and which continued for some time. The next morning the nurses said that every man in “Quarters” had during the night been called up, made to pack his little baggage and been marched to the railroad station, to take cars for the South. Nothing but Gen. Hayes’ impetuous expression, under the stress of deep feeling, probably saved me from the same destination, which, in my condition, might well have been fatal.

His parole from Libby he describes as follows:

One morning in October, 1864, the Richmond paper delivered in the hospital of Libby Prison announced the arrival from the North of a considerable number of paroled Confederate officers. No one of us was so poor an arithmetician that he could not count up that list, which comprised thirty-one names. This, then, was the

number which would soon go from Libby, in return, man for man, for the released Confederates. Thirty-one from the inmates of the hospital were to be set free. For myself I pursued my researches a little further. I was interested, not merely in the number of paroled prisoners, but also in their rank, and when I discovered that not one of them was above the grade of captain, I immediately came to the conclusion that I was "not in it."

Somewhat early in the day, a Confederate surgeon appeared, who was better known to others than myself. He seemed to like the prisoners just as little as they liked him. So hateful was he, that, although he had been sent down for the purpose of picking out thirty-one prisoners, and although the Confederate government owed us that number, he could not bring himself to take part in making so many Yankees happy. Accordingly he went back, having picked out only seventeen of the number. . . . Inasmuch as the matter was one of simple exchange as between two governments, the Confederates had no alternative but to fill up the list; consequently, in the afternoon, there came a Confederate surgeon of a very different spirit. This was Dr. Semple, of Petersburg, who, as I understood, was very much liked by all our men, and who had every instinct of courtesy and humanity which belongs to the gentleman. . . .

When Dr. Semple reached my cot, I was so well satisfied that no lieut. colonel would go on this boat that I contented myself with bowing. He, however, held out his hand, and asked me to rise in bed. I have always thought the hospital steward had whispered something special to him about me. I had always been civil to the little chap, who was kind to us, and I believe he had taken advantage of the opportunity to direct the doctor's attention to me. . . . To my amazement, and, I cannot deny, to my delight, I heard him say, as he turned to the hospital steward, "Put him down. That is," he added, turning again to me, "if your rank does not prevent it, Colonel." To which I had the grace to respond, "If it does, I shall

not regret my rank." He nodded kindly and added, "I shall do the best I can to send you away," and passed on.

In spite of the doctor's kind words, I was highly sceptical as to my approaching good fortune. I did not believe that an officer of my rank would be sent down, and when, in the afternoon, an orderly brought from the Confederate headquarters only twenty-eight paroles, leaving out the three of us who were lieut. colonels, I had no great disappointment to get over. . . .

We were all awake early in the morning, as might be expected. Those who were to go had to prepare for an early start, and those who were to stay found it impossible to resist the contagious excitement of the time. Groups were everywhere formed, men sending messages to their friends at home, by one of the lucky fellows; while the paroled men were engaged in giving away everything they had to those who were to remain behind. This last was always a matter of honor in a Confederate prison. For myself, I got a copy of Cæsar's Commentaries, which had been sent to the hospital, perhaps by the Christian Commission, and settled myself down in bed to read it as steadily as possible. I tried to get my thoughts away from what was going on. The narrative was all familiar enough, and I read on and on, really abstracting myself in a considerable degree from the excitement of the scene, and had just reached the account of the building of Cæsar's bridge over the Rhine, when the hospital steward came dancing down the aisle, turning completely around every two or three steps in his delight, and pointing his finger to three of us, said, in turn, "You are going, and you, and you." I flung the Commentaries as far across the room as my limited strength would carry them, and tumbled out of bed in all haste to be ready for the astonishing change from a Confederate prison to a Northern home.

CHAPTER VI

JOURNALISM AND CENSUS TAKING

WALKER returned to the army after some weeks of recuperation at North Brookfield; but the fatigues of more than three years of campaigning, the physical strain of the Chancellorsville wound, the attempted escape after Reams' Station, and the horrors of Libby Prison were too much for a youth whose health, while good, had never been robust. He found that he could not carry on and resigned on January 12, 1865. On March 13, as already noted, he was brevetted Brigadier General "for gallant conduct at Chancellorsville and meritorious services during the war."

Francis Walker was a born soldier, loving the struggle of mind against mind, of strength against strength, just as throughout his life he tingled with joy at the clash of the football field. He liked the companionships of warfare, idealized his fellow officers, glorified his soldiers, and shared to the last ounce in the spirit which he himself had so often witnessed on the battlefield. As he said in a campaign speech, in 1876, which "electrified" his audience:

I have seen a hundred men lay down their lives around a ragged piece of bunting which, new and whole on a store counter in New York, was not worth \$5, but which, planted on Antietam Creek or at the foot of Marye's Heights, flaunting defiance to rebellion, was worth thousands of precious human lives.

Moreover, on the one hand he possessed the methodical, "tidy" type of mind which enabled him to deal enthusiastically and comprehensively with all the bewildering details of a staff position in time of war,

while on the other, as Col. Carroll D. Wright says, he "comprehended a position at once and saw the strength and weakness of a line of battle or of the position of the enemy." In the address from which this quotation is made and, again, in an oration by Senator Hoar,* it is stated that Walker "saved the day in an important battle." While it is impossible to identify the engagement, there can be no doubt that, at crucial moments in the War, his keen eye and cool mind gave invaluable service to Couch, to Hancock, to Warren and to many another officer. As General Warren says of him in a report on the campaign of the late months of 1863, "thoroughly acquainted with his office duties, so important to the operations of an army corps, he is equally willing and gallant on the field." General Hancock is said to have exclaimed, soon after he took command of the Second Army Corps: "Colonel Walker is the best Adjutant-General that I ever knew."

It was several years before he reached even seeming recovery from the hardships of his military life, and it was the opinion of medical men that his early death, at the age of fifty-six, was due in no small measure to the undermining of his constitution by the strain, wounds and exposures of his military life followed by the miseries, especially to one in his weakened condition, of the weeks in prison.

He never, however, harbored any resentment and was always generous in praise of the South. The late Professor Cross of Technology recorded an incident that he got from Professor Gildersleeve of Johns Hopkins:

* Delivered at a memorial service arranged by the Institute of Technology.

Not so very long after the Civil War, Gildersleeve had something which he wished to do or to secure in which he knew Walker could aid him. So with some hesitation he called and stated his wishes. General Walker had received him very cordially, and on hearing his statement said, "You were a Confederate officer in the late war. I was a Federal officer. We fought against each other. I am glad to do for you anything that you wish which is in my power."

More than anything else, the war matured Walker, as it did most of his contemporaries, far beyond his years. He went into the conflict, in the summer of 1861, a boy and, as he frequently declared, a very "green" boy. He came out of it, less than four years later, a man, with the poise, judgment and sense of genuine values of middle-age. Before reaching twenty-five he had met responsibilities seldom encountered, under normal conditions, by mature men of large affairs; in the years when most youths are quaffing thoughtlessly the wine of life, he had been daily face to face with death. Moreover, he had been admitted hourly to the counsels of his elders upon matters of gravest import to the country, had seen his judgments accepted, and had been taught that wisdom is far less a matter of years than of hard thinking and grave study under circumstances of compelling stress.

Consequently he always regarded young men seriously and expected them to have towards life the same responsible attitude as his. Trained in a school of the hardest kind of work, sustained and exhausting labor had for him no terrors. Educated early in the bewildering duties of a staff position, details were never too great or too complex for his eager mastery. To the war, therefore, Francis Walker owed in great measure that self-command, that seriousness of outlook, that love of hard, purposeful work which not

only enabled him to accomplish such prodigious labors for the public welfare, but fitted him to deal so wisely with young men and to inspire them so loftily.

It is interesting to note that General Walker's experience of war confirmed him as an earnest advocate of peace. In *Lippincott's Magazine* for August, 1869, is a serious arraignment by him of the then generally truculent attitude of the clergy. He writes:

He audaciously, criminally and blasphemously usurps the function of the Almighty who assumes, or acts upon the assumption, that he can make slaughter and devastation minister to human happiness and well-being. War is, and remains, utterly unjustifiable until it becomes actually inevitable. Nor can there be any worse condition for judging of its necessity than a readiness to accept it as something grand and heroic.

In the late spring of 1865 Walker had sufficiently recovered from the strain of his war service to be able to assist his father by taking over some of his lectures on political economy at Amherst. From them, as reported by a member of the class that listened to him,* the "students gained much of suggestion and inspiration."

On August 16, 1865, he married Miss Exene Stoughton, eldest daughter of Mr. Timothy Morgan Stoughton, of Gill, Massachusetts. Soon thereafter he took up the work of teaching Latin, Greek and mathematics,—indeed, all the studies of the Junior Class,—in Williston Seminary, at Easthampton, Massachusetts. While teaching there, Walker was assisting his father with the latter's well-known volume on "The Science of Wealth," and was eagerly pursuing the study of economics in his scanty leisure.

That he was continuing that type of writing which

* Quoted by H. W. Tyler in *Educational Review*, June, 1897.

he began in his seventeenth year is shown by the following from Professor Charles Eliot Norton, at that time editor of the *North American Review*:

Cambridge, Oct. 23, 1867.

I did not receive your essay on "Democracy in War" until day before yesterday.

I have read it with interest; it shows thoughtfulness, and contains much that is just in thought and clear in expression. But a topic like that on which you have written is one of the most difficult to write well upon that can be selected. It is in fact an attempt to determine a question which requires for its proper treatment not only a very wide acquaintance with history, but also a rare power of analysis, and a judgment trained in the study of evidence. A general topic of this sort is attractive to young writers, because they do not usually recognize the fact that a true philosophic generalization can be only reached by long and patient study, and by an induction from a vast accumulation of facts, while on the other hand the ease with which a foregone intellectual conclusion may be made to stand in the place of a correct and genuine generalization is a temptation to all but the most solidly trained thinkers.

My advice to a young writer who really desired to cultivate his mind would be: check the tendency to draw conclusions, to generalize on insufficient data.

I am not disposed to quarrel with your chief conclusion; but there are parts of your essay, especially those relating to the characteristics of monarchies and aristocracies which seem to me to require great modification of statement."

Early in 1868, Walker became associated, as editorial writer, with the *Springfield Republican*. This apparently was a compromise, for Samuel Bowles, the distinguished editor, wrote on January 6, 1868:

I should have liked to have launched you as a journalist, for I have faith in your success; but you are probably

wise in your declination, especially if your health is in any way tender. It is hard work."

Again he wrote, on January 15:

Your pieces are good. You are better ready for journalism than I imagined. Just now for a week, I am full, and I am keeping the longer articles and may not print the Stewart-Grant one. It is just off my track a trifle, but only a trifle. . . . Now if you must or will leave where you are, why not come to us for 3 or 6 months, and write editorials and such work—no late night work—and then make your peace and place here, or soar away to higher skies. If you are ready to launch away like this, come at once. If you will stay where you are, or it is wiser for you, can you agree to give me say \$10 worth of editorials a week—2, 3 or 4, according to quality and study and size?

According to Walker's close friend, Professor Charles F. Dunbar,* this projected change of occupation to which Mr. Bowles refers, was "compelled by an attack of quinsy." All his life General Walker was subject to severe sore throats which were aggravated, of course, by the effort of speaking. The strain of teaching many hours a day must greatly have increased this weakness.

In a book of clippings preserved by Walker is found the following memorandum, dated November, 1888, in his hand:

Following are certain articles written by me and published in the Springfield Republican in February and early March of 1868. I had then accepted a position on the staff of that paper; but not acquitted myself of all obligations to the Trustees of Williston Seminary, and, accordingly, was then living in Easthampton, carrying on my recitations in the daytime and writing at night. After I went to Springfield I ceased to have any interest in cutting out my articles. At least two-thirds of the

* *Quarterly Journal of Economics*, July, 1897.

proper "Editorial" articles of that year (1868) were written by me.

Finding these slips in an old stained envelope, I have pasted them in here, partly to show how jolly green a young man can be; partly because I find many things in the articles which interest me.

Those editorials are still good reading and show little of the "greenness" of which their author made so much. One, especially, on "Southern Feeling" is masterly in its grasp of the psychology of reconstruction. Had the temperate spirit of this editorial prevailed, the history of the United States in the dozen years following 1865 would have been far more creditable.

It is interesting to find that more than fifty years ago the regulation of railroads was under active discussion. In summing up an illuminating editorial, Walker writes:

It is full time to inquire whether our legislation on the subject of railroads cannot be brought into some sort of harmony with human nature and political economy.

In the following, dated February 6, 1868, and entitled, "What is the Use of Great Men?" he points the way out from the slough of despond in which those who deal with a republican form of government at close range soon find themselves, because of the appalling mental inadequacy of most of the people's representatives:

The public minister or lawmaker has a dignity not his own and acquires power from his place. His work is to interpret honestly and express plainly the public conscience and the public will. That Conscience and that Will arm him with greatness, and surround him with majesty. What he needs to bring to his work is, common sense, honesty and good temper; and these he is far more likely to possess with moderate talents than if bewildered

himself, and bewildering others, by the splendor of his genius. Great men intellectually are rare; but the great man who is also calm, prudent and self-centered, is among the rarest products of history.

In an obituary of Walker, published January 6, 1897, in the *Springfield Republican*, and written, presumably, by the younger Bowles, it is stated:

He came to the *Republican* in the summer of 1868, a slender, pale-faced, studious youth, who accounted it the proudest moment of his life when the late Samuel Bowles said to him, after some training, that he could be trusted to write leading editorials. It is remembered that when the chief wanted a long editorial from Walker he asked for a paragraph, knowing that the young writer would not swing his subject in shorter space—and thus getting some curb on him. The demand for crisp paragraphs was always greater than the supply in those days. It was a profitable year for himself and the paper that Gen. Walker spent with the *Republican*, and he always referred to it with interest and satisfaction.

The following indicates the offer, at this time, of a teaching position at Amherst:

Amherst College, 17 Dec., 1868.

To Hon. Amasa Walker.

I received but did not answer your note of Nov. 7 asking leave to retire from the Lectureship you have so long and so honorably filled in our College. While we are truly grateful for past services gratuitously rendered we could hardly expect that, under existing circumstances, you would find it convenient to continue them. I have applied to your son, Frank, by permission of our Trustees, to give our Senior Class instruction in Political Economy, the coming season, but have not yet received his answer. I sincerely wish we could offer him a full Professorship, in our College, which would include American History & Public Law as well as Civil or Political Economy but at present have no pecuniary means. Meanwhile as ar-

rangements for the current year were incomplete, I ventured to leave your name on the Catalogue as heretofore.

W. A. STEARNS.

As already stated, Walker gradually withdrew from his teaching at Williston Seminary and had definitely determined upon journalism as his proper field. Doubtless for the purpose of broadening his experience in preparation for his proposed life-work, and because his father's and his own connections, both political and social, were so extensive that it made the securing of a federal office comparatively easy, he accepted appointment, in January, 1869, as Chief of the Bureau of Statistics and Deputy Special Commissioner of Internal Revenue.*

Meanwhile the Congress was debating the Census of 1870 along lines which would have raised this decennial enumeration to a level of achievement far higher than had then been reached even in any European country, for the details had been worked out by economists of reputation. The fortunes of the proposed measure were, on the House side, in the hands of Representative, afterwards President, Garfield. On June 5, 1869, he writes to Commissioner Wells, the well-known economist:

* . . . "He was drawn into the public service at Washington by the agency of Mr. David A. Wells, who was then Special Commissioner of the Revenue, and in search of a new Chief for the Bureau of Statistics. The work of the Bureau had fallen into some discredit, and was far in arrears; and the inability of the former Chief of the Bureau to command the confidence of Congress seriously endangered the continuance of an important office. By Mr. Wells' advice General Walker was made Deputy Special Commissioner, and placed in charge of the Bureau; and a new career was at once opened before him, for which he was fitted in a peculiar manner both by his intellectual interests and his administrative capacity. The Bureau was reorganized, and its reputation was regained. The monthly publications were resumed, and soon showed the progressive improvement which has made them one of the most valuable repositories in existence for the study of the commercial and financial activity of a great country." From *The Quarterly Journal of Economics*, July, 1897.

We are working hard at the Census every day and I hope we are doing good work. The plan of the operations is this, to achieve the basis of the Schedules for each grand division of the Census temporarily as the basis of our work and then lay these printed pieces before experts and get their criticism and finally collate and adopt the result. . . .

Walker has been before the Committee two days. He did splendidly. I was proud of him. He fully justified all you have said of him. . . .

This is but one of many evidences that the Chief of the Bureau of Statistics, though only twenty-nine years old, was rapidly qualifying himself for larger responsibilities. On January 31, 1869, J. D. Cox, then Secretary of the Interior in Grant's Cabinet, wrote to Walker:

The President has this P.M. sent your name to the Senate for confirmation as Supt. of Census. I have not consulted you on the subject, but hope it will not be distasteful to you. If you can do so, I would like to see you at 3 P.M. today on the subject, at this office.

His name was soon confirmed, and he took up the difficult duties untrammelled by partisanship or by the obligations of the office-seeker. While leaning, naturally, towards the Republican party, Walker was always an independent and became, in time, a "Mugwump." He never went with the extreme Republicans in the matter of protection, remaining to the end a consistent advocate of a scientific tariff wholly divorced from politics and business greed. As to office-seeking, not only had he refrained from asking help to gain the position to which President Grant nominated him, but he accepted it only from a genuine sense of public duty.

In assuming the directorship of the Ninth Census, however, Walker had been hopeful that the advocates of reform, notably his close friend Garfield, would be

able to secure an effective law, one more in harmony with the demands of efficiency and common-sense than that under which were secured the census returns of 1850 and 1860. Unfortunately, and despite strenuous efforts, the reactionaries and the spoilsmen, by uniting their forces, triumphed,* and the Census of 1870 had to be taken under the defective law controlling earlier enumerations. Conditions for the work were therefore so adverse that the new superintendent, with characteristic frankness, repudiated in many instances the results of the Census, denouncing them as false or misleading and pointing out the plain reasons.

Those reasons were to be found, fundamentally, in an almost fatal division of authority. The Department of the Interior, in which the Census division is placed, had almost no control over its statistical agents; the United States marshals, in their several districts, possessed large powers of determination as to time, methods and personnel; and political greed at that period, even more eagerly than now—when the reform of the Civil Service not only has placed many safeguards around appointments, but has educated citizens into an expectation of higher efficiency—looked gloatingly upon the taking of the Census as one of its best opportunities for paying political debts to the lesser henchmen of the party. How remote from Walker were the sordid aspects of a federal “job,” is shown in a story preserved by Mr. J. J. Spencer: †

* “HON. AMASA WALKER:

Jan’y 13th, 1870.

“I can only say now I thank you cordially for your kind expressions. I am as plucky as ever and mean to show fight again in a few days as you will see.—DAVID A. WELLS. P.S.—The General rendered me essential service on my report and much of the credit I get is due rather to him than to myself.”

† *Review of Reviews*, February, 1897.

One day he was approached with the suggestion that since the whole department was under their control, by working in harmony they could have whatever they desired. "I have no desires," said General Walker. "But, General," said his coadjutor, "do you not see that we can push forward our friends and relatives into good places?" "I have no friends," was the characteristic reply.

Special difficulties existed in 1870 because of the disruptions of war, the new status of the Negro, and the demoralization of government in the South. The popular disappointment at the failure of the 1870 Census to show an increase in population proportional to the decennial increase following 1850, was profound and, in many cases, acrimonious. However clearly Walker might point to the direct losses of warfare, to the indirect losses due to a birth-rate cut down by war conditions, and to the almost total stopping of immigration, as preventing a normal rate of increase, he was held personally to blame for the falling-off, and much bitter and unreasoning criticism followed the publication of the tables.

That irritable state of the public mind was not lessened by the fact that, because of the cumbersome Census machinery, the volumes were seriously delayed, and many obvious errors, predicted and acknowledged by the superintendent, stood out so clearly that, as Walker himself expressed it:

It is a pity, and may almost be said to be a shame that statistical information, in many respects of high authority and accuracy, should be discredited by association with statements so flagrantly false, even to the least critical eye.

In Massachusetts, his native state and that of his final service to the Country, the Census met with serious newspaper denunciation, first, because it

showed a serious diminution in the farming area, and, secondly, because Mr. Frank B. Sanborn, for so many years a picturesque leader in philanthropic undertakings, strongly objected to the figures concerning deaf mutes. Long did the latter dispute rage, and delightful was the pugnacious humor on both sides.

A more serious controversy was with Mr. J. C. G. Kennedy, Superintendent of the Eighth Census, who seemed to take delight in hounding Walker and in vilifying his work. He almost literally foamed at the mouth over an article on that Census of 1860 which General Walker published in the *Atlantic Monthly*. In a letter appearing in the *Washington Chronicle*, in January, 1870, Walker said, in reply to Kennedy:

. . . . He calls the author of the Atlantic article a "charlatan" and a "humbug" for venturing to discredit some of the results of the Census of 1860. Mr. Kennedy should know that it is dangerous to import such terms into controversy unless he is sure he can show that they apply to his opponent, otherwise a discriminating public, beholding the fire and the wood prepared, may, like the patriarch of old, look about for another burnt-offering, and, happily, finding one caught by his horns in the thicket, may take him and let the lad go. . . .

Referring, over twenty years later, to this controversy, Walker said, before a legislative committee in Albany:

When the appointments of enumerators were made in 1870 the entire lot was taken from the Republican party, and most of those in the South were negroes. Some of the negroes could not read or write, and the enumeration of the Southern population was done very badly. My judgment was that the census of 1870 erred as to the colored population between 350,000 and 400,000.

. . . . When I was Superintendent I suffered greatly from the attacks of a predecessor, and when a Superin-

tendent was selected to take the census of 1890 I made up my mind that I would abstain from all comments and mind my own business.*

However vexatious and hampering the conditions under which he had to work, the taking of the Census was not, with Francis Walker, as with some of his predecessors, a political job, tainted with incompetence and petty graft, but was a serious undertaking, based upon a genuine science of statistics, and carried out on the highest plane of the printing and map-making art. He was singularly ingenious in the devising of new methods of presentation, and surrounded himself with men devoted to the task of producing a statistical record worthy of a nation, as it then was, of forty million people. Reactionary though they were in the matter of the basic law, the successive Congresses were fairly generous in their appropriations, with the result that the volumes produced by the Ninth Census, and in particular the famous "Atlas," excited the admiration of statisticians all over the world.

Especially did Walker's frankness appeal to those competent to deal with statistical matter secured on so colossal a scale. Not only, as an eminent critic in the *New York World* declares, was it

the handsomest and most useful work of its kind ever issued from a governmental office,

but, as he said,

It is a crucial test for a statistician to admit that one portion of his work is less trustworthy than another, and few ever bring themselves to endure it. There is a mania in many figures, as there is madness in much learning; but Mr. Walker is strong enough to resist the contagion, and doubles the value of his work by the buoys and light-houses erected on its seas of numerals.

* Quoted in *New York Times*, March 8, 1891.

How anxious the superintendent was to make the Census worth while is indicated in the following extracts from letters sent to Daniel C. Gilman, at that time on the faculty of the Sheffield Scientific School. Writing on June 1, 1870, Walker says:

I was delighted to hear from Mr. Carll that he had solicited you to accept the position of Deputy Marshal for the collection of the Social Statistics of Connecticut. . . .

If this were an office for political advancement or for self-glorification, I would not urge you to accept it, but I do feel that every patriotic and philanthropic consideration urges us to do all that can be done, by any personal contribution, to render the Census accurate and complete. Certainly for no other reason would I have remained in Washington another year.

Nearly a year later, he writes in similar vein:

. . . . I have all along had the greatest satisfaction in knowing that we were to receive the Social statistics of Conn. from your hands. . . .

I was aware, at the first, of the difficulties of the work; and felt almost ashamed to ask you to undertake it with such inadequate provisions as the law affords; but realizing how utterly worthless this portion of the Census has heretofore been, I hoped that a scientific interest in the results, and a patriotic concern for the honor of Conn. might make the duty not wholly unpleasant.

Two months later, acknowledging receipt of these social statistics, Walker writes:

. . . . I had prepared myself to be pleased with the results of your inquiries; but I am more than pleased with the report you have put into my hands. . . .

The most important thing to us, yet remaining to be done in respect to the social statistics of Conn. is the esti-

mate required as to the true value of the real and personal property (combined) of each county and important city. I heartily wish I could talk this matter over with you at length. The returns of the true value of property at the census are popularly believed to be of great authority and value. I have my own ideas in regard to the intrinsic value of all such estimates; but so long as our journalists, essayists and legislators accept our estimates as law and gospel in this matter, it becomes us to make those estimates as reasonable and sound as may be. . . .

The scale of assessment for real property is the same in hardly any two States of the Union. . . . In the majority of the Western States, the assessed value is certainly not one-half of the true value. In the Eastern States generally, the assessed value ranges from fifty to eighty percent. . . .

Now as to the value of personal property.

It may always be assumed with a great deal of confidence that in an old State which is in an advancing condition industrially, supporting commerce and manufactures, and having large cities and a considerable number of compact towns, personal property equals real property.

Of course a considerable amount of this property is based upon the value of real property, and there is, therefore, a duplication to that extent. This, however, we expect. . . .

There are many States, however, in which the value of personal property unquestionably exceeds the value of real property very largely. Such I believe to be, for example, Massachusetts, Rhode Island and New Jersey. I shall have to leave it to you to decide whether Connecticut is in the same condition. I certainly think that the result of \$1070 to each inhabitant would be very low for a State as prosperous and as long and thoroughly settled as Connecticut.

The above somewhat lengthy quotation is made to show not only Walker's grasp of questions funda-

mental to accuracy in census taking, but his anxiety to think through every problem in order to eliminate to the utmost avoidable sources of error.

That his zeal and his personality commended themselves to his political associates is pleasantly shown in a letter addressed to Amasa Walker, on November 26, 1870, by Jacob D. Cox, then Secretary of the Interior, and therefore Francis Walker's "Chief":

For General Walker my regard has grown so rapidly that I can hardly believe that our acquaintance is scarcely a year old. Both officially and personally, our intercourse has been so pleasant that I count our friendship as one of the permanent advantages of my Washington life, with which nothing could induce me to part. Whilst I am happy in thinking the hereditary regard and respect all Mr. Finney's family must have for you and yours had much to do with the predisposition which helped on this attachment, I know that the singular ability of the General in his own department, his power of organization, and his devoted attachment to the only true principles of Civil Administration would command the esteem of anybody at the Head of the Department, and his refinement of character and mind must also create a warm and personal affection when he is known.

Faithfully and enthusiastically as the director of the Ninth Census performed his task, it dragged on far longer than he had expected. How vexatious to a man of Walker's temperament must have been such conditions as are recorded in the Cincinnati *Commercial*:

The Census was taken, or presumed to have been taken, on the 1st of June, 1870, but it was not substantially completed until the 9th of January following: yet the Superintendent had to wait for returns many months before the real work of arranging and tabulating the statistics could be begun. Thus it was not till April that the returns of Lodi, Athens County, were received to complete the enumeration of population in Ohio. It was the

23d of June before they were complete from Mississippi, and the 23d of August before the last returns were received from Arkansas.

Not only Walker's patience, but his health gave out in the spring of 1871. On April 7th, Samuel Bowles writes from Springfield:

Are you still up for England this summer? I seem to be drifting towards it, and yet must hold it a doubtful question perhaps, till the 1st of June; but I have bespoken a state room, or rather the refusal of one, till June 1st on the Williams & Guion steamer of June 28th for you and I, if it so be that we can go—together.

On Walker's return from this holiday, Secretary Cox writes:

I congratulate you heartily on your safe return home, and your improved health. Your letter and the copy of the Population Tables were both very pleasant reminders of your presence at your post again, and I am under a thousand obligations to you for both. I agree with you that the printers are entitled to our vote of thanks for their part of the work which is certainly very neat, and if as *accurate* as neat (as I have no doubt it is) will make a completed work of which the whole country should be proud. . . .

I am altogether delighted with the business-like and truly statistical character of the whole volume, and am glad that it is so great a contrast to all former "preliminary reports." It was the true idea to make it a block of the final work, and though I am looking with great interest for your final collocation of the points of difference with former Censuses and of the results of this, I am glad that this volume comes out without a word of preface or horn-blowing.

A special reason for General Walker's impatience with the accumulating delays of the Census is to be found in his seemingly mounting desire to return to journalism. On January 25, 1870, Bowles declares:

You had a narrow escape if you were at all tempted by B. You couldn't stay with him thirty days. He is a perfect charlatan in the newspaper business, with no sense of honor—worse, corrupt—and he would have invited you to dirty work at once.

There has been some coquetting between Jones of the *Times* and myself; but I don't decline things that are not offered to me—nor accept them, either.

Whatever may have ended the "coquetting" between "Jones of the (N. Y.) *Times*" and the editor of the Springfield *Republican*, the attentions of the former had been turned, by the following spring, to the brilliant and efficient superintendent of the Census. On March 15, 1871, George Jones wrote to Walker:

In conversation at the Ebbett House you said you expected to go into Journalism on finishing up your Census Report. I heartily wish you could join us on the *Times*. We are now short handed and where to fill the vacancy I know not. There are plenty of people to be had and if quantity could make up for quality there would be no difficulty to supply our needs ten times over. What we want is a first class editor who could for the present take the second position and the first whenever the exigencies of the office required it. No one man can stand the continuous labor of supervising and editing a first class daily paper in New York, seven days a week, but you are familiar with newspaper work and can understand what the requirements are. I write now to learn more fully what you think of the idea and the probable duration of your stay in Washington. I feel quite sure you would feel as much at home in the *Times* office as in any "newspaper shop."

What may have been the effect of the European trip with Bowles, or what may have arisen to turn Walker's inclinations into other channels, this evidently serious, though fruitless, negotiation with the New York *Times* seems to have been General Walker's last adventuring

into the journalistic field. He wrote prodigiously for the newspapers and magazines all the rest of his life; few men, probably, entered into so many newspaper bouts as did he, for he was by nature and training a fighter. In all things a pioneer and an innovator, he was always under attack from some large or small group of reactionaries who could not, or would not, understand; and he was seldom willing to leave his own position undefended.

In his youth he had undoubtedly dreamed of going onward in journalism from the high point reached by such papers as the *Springfield Republican* to still greater altitudes of truth and influence. But as the years passed by and with them the levels of journalism sank lower, as the morals of the editorial room yielded more and more to the supposed exigencies of the counting-room, even his optimism flagged.

Shortly after Walker's return from Europe in the fall of 1871, there came to him the following letter, dated November 22, from Secretary Delano, who had succeeded Cox as Secretary of the Interior:

I have received your letter of the 21st instant, tendering your resignation of the position of Superintendent of the 9th Census, and accepting the office of Commissioner of Indian affairs.

Your reference to my "personal and official kindness" during your administration of the Census Bureau, compels me to say that, whatever I may have done worthy of that remark, was the result entirely of a sense of duty. It is always a pleasure to aid the efforts of an officer with whom I have official relations such as have existed between us,—in the discharge of his duty. A firm conviction of your purpose to give the Government the full benefit of your ability, and a sincere appreciation of the value, as well as of the integrity of your services, made

it my duty,—as it was my pleasure,—to do anything in my power to sustain you.

In the new field of labor to which I have invited you, with the full approbation of the President, because of its importance and difficulties, I hope to be guided by similar reasons. I shall therefore esteem it a high duty, at all times, to do all in my power to crown your administration of the office of Indian Affairs with success.

As is not infrequently the case in Washington, this transfer was somewhat disingenuous. Congress, always dilatory and not seldom capricious in the matter of appropriations, had so dealt with the Census office that in the fall of 1871 it was impossible to find funds for a continuance of the superintendent's salary. On the other hand, it was essential that this great enterprise should not lose the guiding mind of General Walker just at the moment when his labors on both the statistical and the typographical side were coming to fruition.

President Grant, who took a keen interest in the nation's dealings with the Indian, found himself obliged to get rid of an unfortunate choice as Commissioner of Indian Affairs just at the time when he was confronted with the loss of his able superintendent of the Census. The happy device was hit upon of appointing as Indian Commissioner—on a salary firmly established by law—a man of probity so conspicuous and of administrative ability so pronounced as to efface the ill-effects of the Indian office scandal, while continuing General Walker as superintendent of the Census, without pay. Had this ingenious solution not suggested itself, Walker would have been obliged to leave his census work unfinished, and to see it, through incompetence or neglect, come to disaster.

He did not want to remain in the government service, for the notorious handicaps under which a federal

officer must always work were peculiarly irksome to him. He was comparatively indifferent to a position like the directorship of the Indian Bureau, with the duties of which he had had so little contact. Yet he accepted the double appointment, involving as it did an immense increase in work with no advance in compensation, in the spirit of the devoted public servant.

Concerning this transfer, Walker's old chief, ex-Secretary Cox, wrote:

Your report meets my idea exactly, and I have found it a real luxury to run through its accurate, business-like and candid statements. One may indulge the hope that when once the country has been shown a specimen of such work done in the proper spirit of the work itself, and by one who is both master of the subject and means "business" and nothing but business from beginning to end we shall have a demand for a continuance of the work according to the same high standard.

I have hardly known whether to congratulate you on the transfer to the Indian Bureau. I know so well the difficulties of the position, and the almost hopelessness of the effort to harmonize the philanthropic wishes of our best people with the powerful influence of the frontier states, and the quiet but scarcely less strong opposition of the army, that it seemed to me like the task of Sisyphus. But since it retains you in public employment, I rejoice that any bureau has the advantage of your system of work and your intolerance of rascality. I shall be glad to know how you yourself are impressed with the character of your new duties.

How zealously and minutely General Walker continued to supervise the Census is indicated in the following letters to Professor Gilman. On February 5, 1872, he writes:

I am much gratified to learn that the maps met the approval of the Geographical Society. We have already

learned to improve upon them, and I could send you (but that I now want them for use before Congl. committees) two charts that are much nearer my *idea*, though I still see opportunities for bettering them. All these experiments with hand work will be found useful should Congress authorize a publication according to this form.

A second letter to Gilman, written on March 28, shows not only his enthusiasm for the Census, but also his characteristic devotion to his friends:

Every word you write about the Census—every use you make of my figures—whether published or not, rejoices me.

If you were to devote yourself for a year to writing articles for quarterlies, monthlies, weeklies, and dailies on the results and the lessons of the Census, you could and would teach this people more than they will ever find out for themselves by studying all the vols. of the Census.

Walker remained officially connected with the Census office for several years. Just what his relations were is indicated by two letters. The first is from Secretary Delano, on January 31, 1873:

I transmit, herewith, a commission appointing you to be Superintendent of the Census.

You will observe that the word "emoluments" is erased from the commission as at your express request the appointment is made "without compensation" for your services.

The second, quoted only in part, was written by Walker, March 6, 1873, to Secretary Delano:

It was only on Monday p.m., too late to have any conversation with you prior to my leaving Washington, that I learned the full extent of the instructions given to my Chief Clerk, in respect to the distribution of the Census volumes. I respectfully ask a reconsideration of

the action of the Department on this subject, as I feel confident that it must have been taken without knowledge of the terms of the Concurrent Resolution providing for the printing of my Report (a Resolution which as it is not embraced in the Statutes it is probable the Dept. has never had in possession), and in forgetfulness of the purport of several conferences had between the Secretary, and Acting Secretary, and myself prior to my resignation as Com^r of Ind^a Affairs, in which it was particularly agreed that I should retain the full control of the Census Office with especial reference to directing the distribution of the volumes.

There are the strongest reasons in the nature of the case why the Census office should retain the power of distributing these volumes. That office has come under obligation to great numbers of gentlemen in all portions of the country on acc^t of voluntary and uncompensated services in the collection of statistics, the revision of statements, etc., etc. It has also accumulated by extensive correspondence lists of persons, interested on technical, professional or scientific grounds in the results of the Census, who are by no means of the class accustomed to receive public docs. under the frank of M. C^s. . . .

The above are reasons of public policy for the distribution of the vols. by the Census office. There is also a reason personal to myself which fairly deserves to be taken into consideration in this matter. These vols. are all I have to show for three years of severe labor. The credit I may properly derive from the association of my name with them is my compensation for the service. If they are to be sent out as from the Department of the Interior, and under the frank of the Chief Clerk of the Dept., my name is in so far disconnected from the work—my agency therein disparaged.

The Congress seems to have realized that Walker should have at least an honorarium, for a few days prior to writing the above, a joint letter from Senator

Dawes and Representative Garfield, respective Chairmen of the Committee on the Census, had been received:

Personal regard for you and admiration for your services in both the offices you now hold under the Government have induced us to be instrumental in putting into the Deficiency bill an extra appropriation for you of \$1500, which we hope will be acceptable to you.

The great supplementary Census work of General Walker was, however, the Statistical Atlas, already alluded to, on which he expended for several years after he went to the Sheffield Scientific School prodigies of labor.

This Atlas presented in graphic form and by a skilful use of colors, the results of the Ninth Census in a shape easily understood by those to whom tables of figures would mean nothing, and in a form permitting of almost indefinite scientific use in the studying and presenting of comparative statistical data.

The Congress was, of course, doubtful of a work so novel and extensive, and great credit is due to James A. Garfield for his persistence in securing the necessary appropriations. On January 17, 1874, he writes (this was on the heels of the financial panic of 1873):

I will lay the matter before the Committee [on Appropriations] and do all in my power to have the Atlas published.

I am doing a thorough work of retrenchment, but I do not wish to put out the eyes of the Government in the name of economy.

On May 20, Garfield writes:

The Com^e heard Prof. Raymond with pleasure in regard to the work he was doing and have authorized me to report the full amount appropriated last year, notwithstanding the views of the minute R—. It was certainly very funny that out of the forty or fifty millions to be appropriated for the expenses of the Treasury Depart-

ment and the institutions under its control, the Secretary could find but two things on which he recommended reduction, one, official postage stamps, the other Raymond's Statistical Work. I hope we will be able to hold the appropriation in the House.

The Atlas, when published, produced a genuine sensation in the world of science, for it opened new possibilities in graphic presentation which, in the succeeding forty years, have been realized in remarkable measure, on the one hand, through organization of the science of statistics, and on the other, through developments in photography and color printing. From the mass of letters of commendation it is possible to present only a few. The first, dated February 25, 1875, and written in English, is from the French geographer, Chevalier:

By the arrangement you have adopted the results of the 9th Census are made clear to the eye even of the ignorant. The old way of representing statistics only by figures is very inferior.

The next is from Professor Spencer Baird, then Secretary of the Smithsonian Institution:

You need not be told that it is the best thing of the kind ever attempted for a graphical representation of a vast multitude of important facts.

On August 12, 1875, President D. C. Gilman writes, from Paris:

I heard, with great satisfaction, your name announced at the close of the Geographical Congress of Paris as a recipient of a medal of the First Class for your Statistical Atlas. It was a compliment well merited and all the more noteworthy because it appeared that a stray copy of the Atlas had floated into an obscure corner of the exhibition—a copy which belonged to the U. S. Consul in Paris—while the kindred maps of other countries were mounted and well displayed upon the walls so that their characteristics arrested the attention of all.

CHAPTER VII

INDIAN AFFAIRS

FROM November, 1871, to December, 1872, General Walker performed one of the great typical services of his career. He entered the office of Commissioner of Indian Affairs with practically no knowledge of its duties other than the superficial view gained on a confidential mission to some of the reservations, undertaken in the fall of 1871. Yet in his one year of service he so mastered the details of the situation that he was able to issue, after his resignation, a volume on "The Indian Question," which showed deeper insight than that of any earlier writer, and which is still a standard treatise on this much-mooted problem.

Assuming the duties of the Indian Bureau mainly, as has been said, that he might retain control of his important work for the Census, he found in that circumstance no excuse for dealing with the Indian in any perfunctory or half-hearted way. On the contrary, in his brief term he instituted reforms so far-reaching as to make it safe to say that never afterwards did this much-neglected responsibility of the Federal government fall to such low levels of performance as it had reached before.

His special competence is recognized in an editorial that Samuel Bowles, who happened to be "snowed in" out in Colorado, contributed to the *Denver Daily News* of November 24, 1871. This throws some interesting sidelights on the events of the preceding summer:

Our whole treatment of the Indian question has been
a succession of variations of stupid sentimentalism and

rascally smartness. There is the best hope ever offered of a new and better era in the appointment of General Francis A. Walker to the Commissionership. His wisdom leads him to his integrity; there is no savor of weak goodishness in his honesty; while his ability is of the first class, such as rarely contents itself to take subordinate positions in government.

General Walker is only thirty-one years old; and those who know him well confidently say of him that, in intellectual ability, literary culture, and administrative capacity, he has few equals, and no superiors in the country. . . .

. . . . His health utterly broke down in the early summer under the great drain of this labor, and he took a vacation of two months in Great Britain in company with his friend, Mr. Bowles of the Springfield Republican. He had almost to be carried from his sick bed to the steamer; but he came back the first of September, refreshed, strong, and nearly well again, and has since been devoting himself to closing up the census returns and their editing and publication.

It has been his settled purpose to return at once to journalism, which had become his chosen profession, and several flattering offers in it were before him—one from the New York Times, with a salary of \$8,000 a year. But Mr. Delano, his chief in the interior department, seems to have prevailed upon him to try his hand at reforming the abuses and organizing, or more truly creating, the policy of the Indian Bureau; the President has made haste to give him the opportunity, and next Monday he takes possession of the office,—while he continues also, in charge of the census office until its decennial work is fully closed. General Walker has obtained a little personal insight into the affairs of his new place through a recent visit of inquiry and inspection, at the request of the secretary of the interior, to the Indian agencies of the Sioux in Wyoming and Nebraska territories, and returned to Washington last week with evidences of gross frauds upon both Indians and government in that quarter, involving many persons in their scandals and already followed by the appointment of new agents to those posts. . . .

Between the Indian "rings," little and big,—the demand of congressional and local politicians,—the rivalries and jealousies of the army and the civil service, the war and interior departments, as to the share and responsibility of each in the management of the Indians and their interests,—between the sentimentalists who would coddle the red man with continual presents and excuse, even defend his cruelties, not only protecting him from civilization, but at the expense of civilization, and that short-cut blood-thirstiness and impatience that would slaughter him and all his kith and kin at sight—between the Indian claims to both justice and mercy, and the higher claims of the immigrants to possess and improve the land to the growth and greatness of the nation—between its temptations and difficulties, this place is no bed of roses to a man who seeks only to do his duty and contribute to the fair fame and the power of the American government. But General Walker will meet the difficulties of the situation if any one can.

That his appointment rejoiced those who were seeking justice for the Indian is evidenced by the following newspaper clipping:

The following letter has been written by Mr. Wm. Welsh, of Philadelphia, to Bishop Whipple, relative to the late Indian appointment:

Washington, Nov. 22, 1871.

My dear Bishop:

I sincerely congratulate you, as the tried friend of the red man, on the appointment of General F. A. Walker, the head of the Census Bureau, as Commissioner of Indian Affairs. He did not seek the office—the office sought him. Next Monday he will assume the charge of the Indian Office, which will undoubtedly be conducted in strict accordance with the principles for which you have so long contended, and also in harmony with the War Department as conducted under the present Administration. General Walker has an enviable reputation for probity, intelligence, and industry, and he comes of a good stock, Amasa Walker, of Massachusetts, being his father.

[Signed] Wm. Welsh.

The Indian "question" had usually been answered by the bungling of unpractical sentimentalists or by the very practical stealing of conscienceless politicians. The Civil War was followed by an era of extraordinary territorial expansion which is hardly yet over. With the return to peaceful occupations of the members of two large armies, with the government showering great gifts of land on both settlers and the westward-reaching railroads, with the rapid opening up of new mineral resources, and with the fast increasing demand for grazing space for cattle and sheep, the white man was literally swarming over the hunting grounds of the red. Dispossession of the latter—peaceful if possible, by force if necessary—was a thing inevitable. That the Indian should be left in control, merely for wasteful hunting, of huge tracts worth potential hundreds of millions, was as unthinkable from the economic standpoint, as that, from the humanitarian point of view, he should be killed, directly by warfare or insidiously by mistreatment, to make way for the conquering race.

Walker's problem, therefore, was to bring all such tribes as still stood in the pathway of the enveloping pioneers, within the shelter of reservations extensive enough to satisfy the restless Indian, meeting as far as possible the conditions of climate, topography, etc., to which each tribe had become habituated, and offering suitable conditions for the gradual education of the red man out of the nomadic and into the agricultural state.

The new Commissioner was under no illusions as to the difficulties of the undertaking. He was dealing with a race the typical member of which, to use his own graphic sentences,* had been "voluptuary and stoic; swept by gusts of fury too terrible to be witnessed, yet imperturbable beyond all men, under the ordinary

* "The Indian Question," p. 15.

excitements and accidents of life; garrulous, yet impenetrable; curious, yet himself reserved, proud and mean alike beyond compare; superior to torture and the presence of certain death, yet, by the standards of all other peoples, a coward in battle; capable of magnanimous actions which, uncovered of all romance, are worthy of the best days of Roman virtue, yet more cunning, false and cruel than the Bengalee." . . . and who had become, through debasing contact with white so-called civilization, "a beggar, . . . the most commonplace person imaginable, of very simple nature, limited aspirations, and enormous appetites."

On the other hand, the Commissioner must deal with agents, many of them irresponsible and greedy, and all of them confident in the support of obliged politicians. He must reckon, moreover, with the impatience of settlers, most of whom adhered to the simple creed that "the only good Indian is a dead Indian."

Even official physical contact with the Indian had its difficulties, as the following experience recorded by Walker shows:

. . . The day and the hour of the feast came. We met in a great tepee; and I sat, as was proper, on the right of Swift Bear. The chiefs and braves, with the agent and the interpreter, sat around in a circle. Soon some young men entered, bearing the steaming food. The service of plate was not what might have been expected in the mansion of a great chief. It consisted of pint tin cooking-dishes, such as are familiar in every New England household. Under my eyes, under my nose, was set down one of those bowls, which contained a quarter of puppy, with the leg lifting itself towards me in a very tempting way.

I think I could have stood even that, had it not been for the little velvet mats, where the claws were, or should have been. The Indian cook had been too realistic in his desire to give the fullest possible effect to nature. I looked

down and felt myself growing white. I looked up ; but my eyes, by an almost irresistible attraction, fell again upon the tin dish and the leg with the little cushions. Fortunately, just at this juncture, Major Wham discovered my distress, and, reaching his hand around, withdrew the dish, substituting for it one of stewed wild cherries, such as constituted the portion, at the feast, of the commoner sort. Only great swells, like Swift Bear, myself and Wham, were supposed to have dog.

During this journey, the commissioner took a trip on the Platte River, where he saw, as did other travelers of that period, herds of buffalo so great as to be practically innumerable.

To understand, as far as an alien can, the real desires and needs of the Indian tribes and the individuals therein, to keep a watchful eye upon the too often faithless guardians of their interests, and to maintain some measure of even-handed justice between the encroaching frontiersman and the resisting red man, it was essential, of course, to have trusted agents always in the field to be eyes and ears for the commissioner. Had Walker done nothing else, his almost immediate insistence, upon taking office, that this gross defect in the Indian Service be remedied, would have been a notable advance. At his instance, Congress created the office of U. S. Indian Inspector, with lasting good effect.

Fortunately, the new commissioner was under no obligation to continue the absurd farce, inherited from colonial days, of treating with the Indian tribes as though they were sovereign powers. On the 3d of March preceding Walker's appointment, the Congress had declared that

hereafter no Indian nation or tribe within the territory of the United States shall be acknowledged or recog-

nized as an independent nation, tribe, or power, with whom the United States may contract by treaty.

To be sure, this legislation had left the relations between the Federal government and the Indians hanging in mid-air. If they were not to be dealt with by solemn treaty—soon to be broken on one side or the other—how were negotiations for the lands which they claimed and which, by squatters' right at least, were theirs, to be carried on? Pointing out the anomalous situation, Walker was content to deal with it as it existed and to raise no nice points of law. Moreover, he had no false views as to maintaining the white man's prestige. As he frankly said:

There can be no question of national dignity involved in the treatment of savages by a civilized power. The proudest Anglo-Saxon will climb a tree with a bear behind him, and deem not his honor, but his safety, compromised by the situation. With wild men, as with wild beasts, the question whether to fight, coax, or run, is a question merely of what is easiest or safest in the situation given. Points of dignity only arise between those who are, or assume to be equals. Indeed, nothing is at times so contemptuous as compliance. It indicates not merely a consciousness of strength, but of strength so superior as to decline comparison or contest.

Grant that some petty Sioux chief believes that the government of the United States feeds him and his lazy followers out of fear, or out of respect for his greatness: what then? It will not be long before the agent of the government will be pointing out the particular row of potatoes which his majesty must hoe before his majesty can dine. The people of the United States surely are great enough, and sufficiently conscious of their greatness, to indulge a little longer the self-complacent fancies of those savage tribes, if by that means a desolating war may be avoided. . . .

Nor is there any savor of treachery in the government thus biding its time. In this the government simply,

from a wise consideration of the exposed situation of the settlements, refrains from the full exercise of the authority which it claims. It in no wise deceives the Indians, but only indulges their illusion till the time comes when the illusion must be broken. It watches the troubled sleep of the maniac, ready to restrain his violence if he wakes, yet mercifully willing that he should remain unconscious. And this forbearance of the government is not less kind to the aborigines than to those of our citizens who are building their homes within reach of the red man's hand. If the savages—Sioux, Kiowas, Cheyennes, Comanches, whom the United States are thus playing with—realized in any adequate measure what the next few years have in store for them, how completely they will be surrounded and disarmed, how certainly they will be forced to labor like squaws for their bread, how stringently the government will enforce its requirements when their power of resistance shall have departed; it is inconceivable but that, in their present temper, ignorant as they are of the real resources of the whites, and conscious that they can still bring eight thousand warriors into the field, they would precipitate a contest which, though it would involve untold misery to our border population, must inevitably end in their own destruction.

Upon this basis General Walker commends the reservation system as being the only solution of the difficult problems raised when a nomadic and practically dying race finds itself confronted by a nation of settlers, fecund and aggressive, who aspire to make the unutilized hunting grounds of the savage into vast farms and teeming cities. To his, as to any reasonable mind, the advantage to the world of conserving the resources of the West by putting them into the hands of competent pioneers, instead of allowing them to go to waste under the control of ignorant and, as a rule, unteachable nomads, presented no basis for argument. Give the Indian all the space he really needs, even though he should refuse to substitute agriculture for the chase;

assign him lands that, should he embrace farming, will give him easy and ample return; teach him and encourage him as far as he will consent to be developed; but if, resistant and vindictive, he strays outside the wide boundaries of the reservation, insist upon his going back. If he then goes upon the warpath, meet his savage fighting with stern war.

Walker explained very simply his attitude in a letter written to Mr. Brunot, in October or November, 1872: *

I cannot see any ground for anxiety in respect to the future treatment of the Indians. I do think the scourge will be more freely used than heretofore in getting them on reservations and keeping them there, and this I have always believed in. Without constraint, nothing can be done to elevate these people. They are like children who dislike to go to school, and will not if they can play truant at pleasure. I used to have to be whipped myself to get me to school and keep me there, yet I always liked to study when once within the school-room walls. I don't believe Indians, as a rule, are any more zealous for self-improvement than most children. They are impressionable, susceptible, and capable of much good, but the precedent condition of doing anything for them is rigidly to control their attention and demand their presence. . . .

I think the humane sentiments of the country were never more awake, that the conscience of the country was never more alive to its duty to the Indians and intelligent in respect thereto, and that the good men of the land were never stronger as against the bad men of to-day. . . . The Indian policy is one of the things that the bad men dare not touch. Perhaps this is too sanguine a view, but I find, or think I find, that the worse a politician nowadays is himself, the more anxious he is to conciliate the religious and scholarly elements; and on both these we can now count with assurance in holding the country up to substantial justice to the Indian.

* "Felix Reville Brunot," pp. 195-197.

Unfortunately, this optimism, based on that real change in public opinion which had been brought about, in large measure, by the active interest of President Grant, whose magnanimity had always been conspicuous, and by the wise zeal of Commissioner Walker, was soon to be shattered by the horrors of the "Modoc War." The seeds for this outbreak were sown long before Walker's service in the Indian Bureau, and the dreadful harvest of it was not to be reaped until some months after he had resigned therefrom. That he was not held to be in any way responsible is evident from contemporary testimony. Senator Dawes, for example, commending his son to Professor Walker, at New Haven, in April, 1873, closes his letter with:

How thankful I am that this horrible Modoc War is not of your Administration.

Yet the Modoc War was so truly the result of conditions which Walker had made such strenuous efforts to remedy, that it is not out of place to outline its tragic history.

In 1864, the Indians of the Klamath Lake Basin, in the Oregon territory, had ceded all their lands, with the exception of the Klamath Reservation, to the United States; whereupon that basin had been surveyed and opened to white settlement. Unfortunately, however, the Klamath and Modoc Indians, now assigned to a common reservation, were old enemies, and the former were, without question, as General Walker says in his Annual Report, of an "overbearing disposition."

Brought back to the Klamath Reservation, in 1869, after their first wanderings to their old hunting grounds, under distinct promise that the government would protect them from annoyance by the Klamaths, that promise to the Modocs was not kept. To quote

from the report of Mr. A. B. Meacham, special Commissioner:

This war was the result of changing agents and policies too often, and the absence of well-defined regulations regarding the relative duties and powers of the Indian and military departments, the citizens and the Indians. While the "humane policy" is the correct one, it ought to be well defined, and then intrusted to men selected on account of fitness for the work.

Meanwhile the Modocs had wandered to their ancient hunting grounds about fifty miles south of the Klamath reservation and had there caused much annoyance to the widely scattered and therefore practically helpless settlers. Unfortunately, the agent at Klamath advised, in a report to the commissioner, dated August 31, 1872, against setting off a new reservation for them, although General Walker himself, despite this advice, recommended to the Secretary of the Interior that they be permitted "to locate on a small reservation by themselves."

By a personal visit to Washington, however, the agent seems to have secured permission to require the Modocs to return, by peaceful methods if possible, and by the use of military force, if necessary. Mild measures having failed, the agent requested the officer in command of Fort Klamath to "furnish a sufficient force to compel said Indians to go to Camp Yainax, on said [Klamath] Reservation." To quote from the subsequent report of Governor Grover of Oregon to General Schofield:

At this point two very incomprehensible and disastrous circumstances occurred.

1st, The order of the Indian Department for the removal of the Modocs by force was not delivered to the officer specially designated by Gen. Canby for that duty; and,

2nd, No notice whatever was given to the neighboring settlers that difficulties were pending.

The result was that on the 29th day of November, 1872, a small detachment of troops, thirty-five men, under the command of Captain James Jackson, approached Captain Jack's camp, early in the morning, and demanded that he surrender and go upon the reservation, according to the terms of the treaty. This was refused, and upon further demand the troops were fired upon by the Indians. . . . During, and subsequent to the affair between the command of Capt. Jackson and the band . . . under Captain Jack, the Indians under Hooker Jim . . . scattered in small parties among the isolated settlements for twenty-five miles around and massacred eighteen unoffending and unsuspecting citizens. (Nov. 29 and 30.) . . . Hooker Jim's band had not been approached by the soldiery. Captain Jack's band, after the fight, fled South . . . to the Lava Beds. . . .

On the 17th of January the first general engagement was fought with the Modocs. This battle was well contested under the circumstances; and though not successful, it clearly exposed the difficulties of the field and the character of the enemy. . . .

After the battle of the Lava Beds, . . . a Peace Commission was appointed by the President to negotiate terms of peace with the Modoc Indians. Hopes were entertained that this Commission would be able to so adjust all matters of difficulty with those Indians as to secure a permanent peace with the tribe. . . .

Negotiations were kept up for about three months when the proceedings of the Board were brought to an abrupt termination by an attempt on the part of the Indians to massacre the entire Commission. This attempt was partially successful, Gen. Canby and Rev. Mr. Thomas being killed on the spot, Mr. Meacham, another of the Commissioners, being badly wounded and left for dead, and L. S. Dyar, the remaining Commissioner, only saving his life by flight. This terrible act of perfidy and savage cruelty put an end to the peaceful negotiations, and the Indians . . . again started on the war path, with increased vigor and ferocity.

How far General Walker was from anticipating these evil consequences of the Government's failure to pay heed to his recommendations is shown in his letter of resignation, dated December 26, 1872, and addressed to President Grant:

Sir: I have the honor to tender my resignation of the office of Commissioner of Indian Affairs. . . .

In retiring thus from the office of Indian Affairs permit me, sir, to bear my humble testimony to the fidelity with which you have maintained and carried forward the policy of justice and kindness toward the aborigines of this country, which was so successfully inaugurated in the earliest days of your administration, and which has already borne such abundant fruit of peace and prosperity along our once scourged and afflicted borders.

Two days later the Acting Secretary of the Interior, Mr. B. R. Cowan, replied:

In severing your official connection with the Department, I desire to assure you of the regret I feel at the separation and at the great loss to the public service of one who has administered the responsible duties of so difficult an office with such fidelity, energy and intelligence; and whose personal relations with the Department have been so uniformly agreeable and satisfactory.

How generally Walker was regarded as an authority on the problem of the Indian is indicated by the following letter from the then editor of the *New York Tribune*, Whitelaw Reid:

Don't you want to write for us at least one strong editorial, possibly more, on the Indian Question? You understand it better than anybody who has been writing on it, and I have the further motive in asking you that I should be glad to tempt you into the habit of doing political work occasionally for the *Tribune* any way.

No one who has been once a successful editor ever abandons the work altogether.

The "new field of labor" referred to by Secretary Cowan was that of Professor of Political Economy at the Sheffield Scientific School of Yale University, appointment to which office had been conveyed in the following communication from Mr. Franklin B. Dexter, then Secretary of the Corporation:

I have the honor to inform you officially that the President and Fellows of Yale College, at a stated meeting held this day, have appointed you Professor of Political Economy and History in the Sheffield Scientific School of Yale College, at a salary of three thousand dollars (\$3000) per annum; with the expectation that in case of your acceptance your duties will begin with the opening of the next term, on the 3d proximo,—the salary to begin with the same date. I have only to add that the Corporation have made this appointment (upon the nomination of the Governing Board of the Scientific School) with perfect unanimity, and with the conviction that your acceptance will be a great gain to the interests of the school.

Between the dates of his decision to resign as Commissioner of Indian Affairs and his acceptance of the chair at Yale, Walker narrowly escaped emulating his father as a shoe manufacturer. His brother-in-law, Mr. Batcheller, who had a large shoe factory at North Brookfield, made him a tempting offer to enter that industry, an offer which, in view of his growing family, he felt it his duty to accept. He had gone so far as to box his furniture for shipment to North Brookfield when the offer came from the Sheffield Scientific School. With the hearty approval of his family, he forsook probable riches for the meagerly rewarded, but congenial, life of teaching.

The decision was a wise one, for in accepting a

college appointment General Walker had found, it seems clear, his true vocation: that of teacher and leader of young men. No man of his honesty and love of efficient methods could remain satisfied with a life spent in government service, no matter how exalted the office. As is testified to again and again by those who held positions of authority in Washington, the atmosphere at that time was hopelessly tainted with low ambitions, widespread political "log-rolling," and insidious and disheartening forms of graft. Whichever party might be in power, its representatives showed very little variation in personal ability or in breadth of view. With a few conspicuous exceptions in the elective offices, and with very many in the appointive personnel (particularly in the scientific bureaus), most of those in Federal service were professional politicians, ignorant ward-heelers, pettifogging lawyers, or men who had failed in other undertakings.

The chief aim of most of these persons being to keep their party in power, and themselves or their friends under government pay, the public welfare was usually subordinated to what those short-sighted office-holders believed to be their own best interests. They were obliged, they thought, to consult the whims and prejudices of their constituents rather than the broad needs of the nation, to secure office or some other "good thing" as a reward for those who had advanced their political fortunes, and to view the far-reaching problems of national well-being from the narrow standpoint of party exigency.

A wholesome change took place in the years of Roosevelt's incumbency, and, since then, standards in many departments of the Federal service have been higher and the conduct of the nation's business more efficient.

Nevertheless, the attempt, through long years, to satisfy greedy constituents has vastly overstaffed most of the Federal departments; adherence to the evil principle that the less each man works, the larger will be the required number of workers, has greatly reduced individual efficiency; the rules of the civil service, necessary as they are to prevent unworthy appointments, make the dismissal of incompetents extremely difficult; while the overlapping of functions, the settled habit of shifting responsibility, the rampant jealousies between bureaus and among individuals, the insidious growth, in all directions, of governmental red tape, and, above all, the irresponsibility and fickleness of shifting Congresses, combine to render the prompt and orderly despatch of governmental business quite impossible.

General Walker was keenly alive to this demoralizing state of things, and often declared that he could think of few worse fates for a young man of parts and ambition than to fall under the deadening spell of a government position. He himself first entered federal employ in the spirit of eager youth, aiming towards journalism and obliged, almost as a prerequisite, to be familiar with the official life of the Capital. He entered it again, as will be seen, in order to put into effect himself the vastly improved census methods of which he had been the protagonist and so largely the author. At no time, however, did he find satisfaction in the conditions of his work at Washington, and, though often urged, he steadily refused to consider running for any federal office.* He must have heartily agreed with Senator Dawes, who wrote, concerning his resignation from the office of Indian Commissioner:

* Exception should be made of the Senatorship from Massachusetts, to which he was favorably inclined in 1882. He would not run, however, against Senator Hoar.

Permit me to congratulate you, after all, on your opportunity to slough off Washington and breathe a pure atmosphere, and to show my sincerity I beg you, if you can find time, drop a line to those gentlemen in the Legislature to whom you allude. I knew you would laugh at the inconsistency of the two parts of that sentence—and therefore I make note that I see it myself. I am like the man who called the attention of the Deity in his prayer to his paradox—and I exclaim with him, “It is nevertheless true, O Lord.”

Major Alvord, who was General Walker’s personal representative in the field during the latter’s service in the Bureau of Indian Affairs, informed Colonel Wright,*

that he remembers well the General’s astonishment and indignation at the revelation of practices in connection with contracts for Indian supplies, which had become so well established as to be taken for granted, and many persons visiting the office assumed, much to their discomfort, that they were dealing with a commissioner resembling in all respects those with whom they had been accustomed to do business. He further relates that he has seen General Walker under various trying circumstances, but that he never saw him so much agitated and almost beyond control as one morning when entering his office he found him endeavoring to free his mind in a very emphatic manner, because some clothing contractor had, as he expressed it, dared to assume “that his (Walker’s) price could be properly represented by a silk umbrella.”†

* Address of Carroll D. Wright on F. A. Walker, p. 265.

† Years afterwards, when Walker was a member of a committee having in view some betterment in Boston, one of his colleagues was approached by a ward politician with the intimation that, if a certain project were carried through, it might be to the financial advantage of the committee. To which hint, the gentleman quietly replied: “It is fortunate for you that you did not suggest this opportunity to General Walker instead of to me. He is a man with a mighty temper and would have responded by throwing you downstairs.”

His indignation was promptly translated into action, for, as stated in a letter from Professor Folwell, historian, of Minnesota:

Recently I had occasion to inform myself about his [Walker's] conduct as Commissioner of Indian Affairs and found that to him was due the exposure and final suppression of the frauds of Chippewa half-breed scrip by which distinguished citizens had got possession of large areas of our best Minnesota pine.

This represents but one of the many stealings and abuses which General Walker exposed and, as far as possible, cleared up. Had he been able to devote himself to the Indians for at least five years; could Grant have been depended upon to stand behind him and therefore to join in a fight—hard, complicated and not free from personal danger—against the greedy hordes of contractors, shady politicians and miscellaneous camp-followers who made their living out of cheating and cozening the helpless Indians; could the Congress have been persuaded to deal in a statesmanlike way with a critical situation; and could there have been brought about cordial coöperation between the civilian and the military forces,—who must work together, as Walker pointed out, if the red man was to be protected against the impact of white settlement,—it is more than probable that, despite the bitterness aroused by the Modoc war, he could have gone far towards solving the Indian question. But to what end? A new administration, or a cabal within the existing administration, could almost surely have been counted upon sooner or later to destroy the constructive work of a real up-builder such as Walker was. These destroyers, moreover, would have taken vindictive pleasure in uprooting, if possible, the very foundations of the edifice of justice and fair play so carefully built up.

Concerning the relations of the military and the civilian forces in controlling the Indians, the following is of interest:

Headquarters Army of the United States.

Washington, D. C., Aug. 20, 1874.

Dear General,

I am indebted to you for the courtesy of a copy of your recent publication on the Indian Question, which I shall read with great interest. Of course I have thought much of this problem and have almost made up my mind that it admits of no solution. Indians must assimilate to the white man in habits and thoughts else there will always remain that irreconcilable conflict, which made security an impossibility.

To change our nature is probably the most difficult thing in life, somewhat like the leopard changing his spots, and this must be done before the white man and Indian can live in peace side by side. Even the industrious Mormons could not stay in Illinois, and doubt exists if they will be permitted much longer to stay at peace in the desert of Utah. So with the Indian; even should they be nominally at peace, yet every murder or stolen horse on the border will be charged to them, when retaliation follows, which grows into a Frontier War. In the multiplicity of accounts we naturally lean to the story of our own people, so that the Indian will ever be in the wrong, unless he adopts our customs and becomes a citizen.

I am glad the responsibility rests with the Civil Authority, though certain that there is no peaceful solution except through military force.

As ever your friend

W. T. SHERMAN.

The following letter sent, July 20, 1874, to the Springfield *Republican*, delightfully sets forth General Walker's views on legislators, and incidentally on Trades Unions and a Protective Tariff:

I am not opposed to trades-unions as friendly societies; nor did I intend at Amherst to express any opinion on trades-unions as associations for organizing and conducting strikes. The unfavorable views expressed at Amherst respecting trades-unions refer to them as associations for legislating respecting the methods and courses of industry.

I believe there never was a body of legislators, yet, that was not clumsy, ignorant and brutal. Legislation, however, for the preservation of the public peace is a necessity; and, therefore, brutal, ignorant and clumsy as it is certain to be, I fully acknowledge its place in the social order. Beyond this, I regard all legislation as an unmitigated nuisance.

This is why I am a free-trader,—not because I doubt that capital and labor make mistakes, when left to themselves, overlook great natural advantages, and from timidity lose many of the best opportunities; nor because I doubt that it would be possible for a central authority, directed by superior intelligence, so to order them as to produce appreciably larger results; but because I know of what sort of stuff legislators and committees are composed—what sort of bargaining and dickering goes on at every stage of Parliamentary procedure, what sort of compromises are made in legislation, and what sort of influences prevail in passing bills to a third reading and to be engrossed.

For these reasons, I would rather trust the sense of individual interest, imperfect as it is often found to be, than submit industry to the decisions of any Legislature that ever was assembled.

There never was but one man in power, who knew one-tenth part of what was necessary to enable him to give laws to the production of a great nation. That man was Napoleon Bonaparte, and he made a mess of it.

When you leave the “one-man power,” and undertake to govern industry through the motley and accidental crowd that, under free government, is called a Legislature, you leave behind the possibility of intelligent, steady and consistent direction.

I am not in favor of trades-unions legislating for indus-

try, because I believe that those who control them will be found just as little capable of the trust as parliaments, congresses or legislatures have shown themselves; while they cannot even assume the attitude of impartiality.

General Walker follows this up with a lively letter to the *Providence Journal*:

The Springfield Republican quotes the *Journal* as saying: "If legislation is clumsy, ignorant and brutal, then the legislators who enact it are, as legislators, clumsy, ignorant and brutal; and that the distinction made by the Republican is a distinction without a difference."

Pray permit me to say that the distinction between the actor and the act is one that is fully recognized as a distinction with a difference. Many a wise man does many a foolish thing; many a good man does a wrong thing; many a saint commits a sin. And if the distinction is both valid and vital with respect to men in their individual and ordinary capacities, it becomes of far greater moment when men come to act in an extraordinary and representative capacity, and preëminently so, when they attempt to deal with matters for which God and nature have not intended or fitted them, and assume to give law to the activities of a nation.

The social and industrial relations of every community, even the most primitive, are a web finer and more intricate than gossamer; and when the clumsy foot of the law, as of a ruminating or meditative ox, is brought down upon it, rending and crushing what all the art of all the legislators in the world cannot restore, I say "brutal." It does not follow that the individual legislators who, under a false philosophy which prescribes a paternal system of government, take part in such acts are, therefore, brutal. The thing is brutal, shockingly so; but their doing it is to be charged not particularly upon them, but generally upon a false and pernicious theory of legislation, which assumes that it is the right and duty of the majority by physical force (for all that is implied in law) to restrain or compel society and industry in their ends, their courses

and their methods, according to what may seem to the majority,—it may be an accidental majority,—wisest and best.

So of the use of the word “ignorant.” Ignorance is relative. Three hundred manufacturers, editors and lawyers, no one of whom could be called ignorant when acting for himself, in his chosen way of life, might, if they set themselves up to give laws to a great nation, in matters of such intricacy and delicacy as industry and trade, produce schemes which could only be characterized as ignorant. But, if no inconsiderable portion of these three hundred legislators should prove to be men of less than high capacity; and if they were found to represent conflicting interests; and if legislation were found to become the result of pulling and hauling between sections, of lobbying and log-rolling, of trading and dickering between members, then the issue might not only be ignorant, but corrupt. As to justifying the use of the word “clumsy,” I cannot undertake it. If there is one of your readers who does not think that legislation is clumsy business, I give it up.

Entertaining as these letters are, it should not be overlooked that, in their seeming advocacy of *laissez faire*, they do not fairly represent Walker’s matured opinions of later years.

That, after his four strenuous years in Washington, journalism itself should have seemed too deeply tainted with partisan narrowness and political expediency for him to take up the profession, seems more than probable. Strongly as he had inclined towards newspaper life, its attractions could not outweigh the opportunity for dignified association, quiet study and definite, recognized accomplishment which is presented by a university professorship.

At least two such calls had come: from Amherst, for which college President Stearns writes “we ought to have secured you,” and from the Sheffield Scientific

School, from which Professor D. C. Gilman wrote, September 24, 1872:

If you knew how sorry I am to leave the post in the Sheffield School, which Professor Brush consults you about, I am sure you would like to enter upon it. The associates you would have, the opportunities to teach, write and talk which are open to you, the nearness to Boston and New York, and above all the chance to help on modern studies in a conservative and substantial way—all this will attract you. If you listen favorably I shall have much more to tell you of the excellences of a position which I leave with profound regret.

A few days later, on October 5th, that long time pillar of Sheffield, Professor Brush, wrote:

I was very glad to get your letter of acceptance this morning. We all rejoice and give thanks that you are willing to cast your lot with us. It gives us new courage for the work. . . .

President Porter is much gratified with your decision and both he and our noble patron, Mr. Sheffield, will give you a warm welcome.

CHAPTER VIII

YALE UNIVERSITY

FOR nearly nine years, from 1871 to 1880, Professor Walker carried forward, with pronounced success, the Department of Political Economy at the Sheffield Scientific School of Yale University. For the five years, November 10, 1873, to October 28, 1878, he was also Secretary of its Governing Board.

He was far from being, however, the traditional college professor, anæmic in face and figure, indifferent to dress, remote from his students in mental attitude, and wholly immersed in erudition. On the contrary, he was not only careful to keep himself physically fit, he was rather solicitous in the care of his person; and generally wore a modish and glossy silk hat. That hat, indeed, seems to have made a lasting impression upon many of his students, both at Yale and at the Institute of Technology. It doubtless helped to maintain the soldierly bearing which he had acquired in the war and which never forsook him, however great might be his bodily fatigue.

Furthermore, he was genuinely interested in young men,—an interest fostered by daily contact with his own five sons,*—and was almost exuberantly keen in

* Washington, Dec. 13, 1879.

MY DEAR STOUGHTON:

I have written your mother that you can have the press & type for Christmas, and you can pay up on the type as you get a chance through the winter, by shovelling snow for your Aunt Lucy.

Give my dear love to all the boys & girls. I want to see them all. Stoughton, Lucy, Ambrose, Francis, Evelyn, Etheredge & Stuart. Gracious! what a roll of names, & what a lot of young rascals!!

following their sports and games, especially their college football. Professor Farnham remembers that Walker always kept track of the baseball and football games of the leading colleges, knowing the members of the teams by name and having the scores accurately in mind. Professor Chittenden states that Walker was almost a boy in his eagerness to "root" for the Yale team, and that, after leaving New Haven, he always sent for Yale tickets for the Harvard-Yale game so that he might sit on that side and take an active part in the cheering. Professor Chittenden believes that Professors Walker and Brewer were both inclined to side with the students, when it was a question of some harmless prank displeasing to the more academic-minded members of the Faculty. Professor Dwight Porter of the Massachusetts Institute of Technology, one of his students at Sheffield, writes:

Some evidence that the General was a popular man with the Sheffield students is given by the fact that our student publication called "Class Statistics" bore the inscription, "To the favorite Instructors of 'Eighty, as of 'Seventy-nine, Prof. Francis A. Walker and Prof. Albert S. Wheeler, this book is respectfully dedicated."

Walker once remarked, in substance, to a friend: "I don't propose to be made into a policeman; that's not what I came here for."

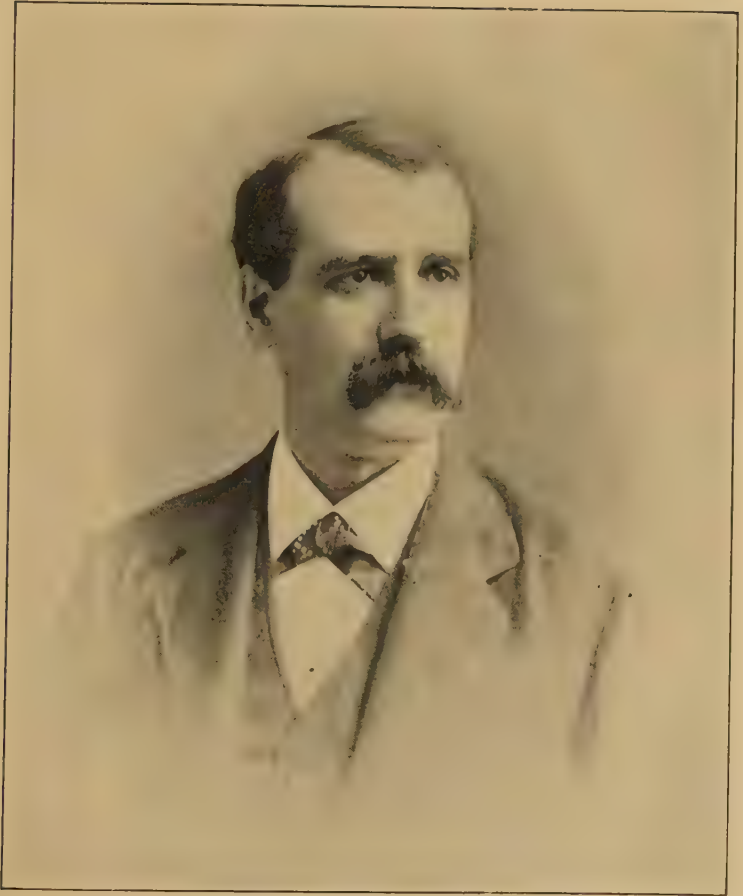
Mr. Walter Camp, for so many years associated with Yale athletics, confirms the opinion of others that Walker looked on football or baseball as a contest in which the winning or losing was a matter of vital importance because of its effect upon the morale of the youth concerned. He had no patience with the dilettante attitude which regards a game as a means of passing the time, or with the utilitarian point of view which looks upon it simply as a pleasant method of

securing exercise. Believing the outcome to be of such great consequence, he was sternly intolerant of even a suggestion of unfair play or of the slightest taint of the professional.

As to his learning, President Hadley once said of him that Walker knew more things worth knowing than any other man of his acquaintance. On the other hand, General Walker himself not infrequently said that "he was proud of the things he didn't know, provided he knew where to look for them." He possessed a quick and searching intellect, a retentive memory, an unusual gift of expression, and a judicial type of mind which enabled him to separate the essential from the non-essential in a statement of facts or in a body of argument. Moreover, he was courageous, both in the holding and in the pushing of his opinions, and was always zealous to make his unusual powers of the largest service to society.

All these qualities were of the utmost value in the two fields in which he was most widely occupied: economics and education. Both, as Walker himself frequently said of economics, were comparatively new sciences; in neither had systematic methods of inquiry been largely employed; yet both were encrusted with usages, prejudices and traditions which had grown up without warrant of real experience or of sound methods of reasoning; both needed courageous leaders who would sweep away the cobwebs of inherited formalism and let in the clear light of common-sense.

It was as an apostle of common-sense—that rarest of possessions—in the consideration of the fundamental questions of economics and of education that General Walker stood head and shoulders above most of his contemporaries. The common-sense that he exercised was quite other, however, than that of the "plain man"



FRANCIS AMASA WALKER
Professor at the Sheffield Scientific School

who rules his life by irresponsible and erratic prejudice. It was a common-sense based on "thinking through" each new problem in the light of ascertained facts, of sound knowledge of human capacities and limitations, and of the remorseless logic associated with all true scientific inquiry.

Furthermore, Walker had no pride of personal opinion. He sought eagerly and extensively for additional facts and ideas, held all his views subject to revision in the light of new knowledge, and prided himself upon being, to use a special word of his, "handsome" in his acknowledgment of the work of others. It is true that he was frequently engaged in controversy; it is not to be disputed that, in a moot question like bimetallism, he showed a fighting spirit that his opponents believed akin to obstinacy; but in all such cases he felt certain of his fundamental facts and, therefore, under obligation to square his thinking with premises which he regarded as incontrovertible.

As a teacher he was able to hold the close attention of his classes, to enlist their coöperation in the discussion of controversial problems, to inspire and retain their personal affection. Always shy, sometimes wrought up to high nervous tension in anticipating the ordeal of speaking, he usually began a lecture badly and in an attitude almost of apology. Once launched, however, especially upon a "live" topic, he forgot himself in his subject, spoke with continuously greater ease and fluency, and often rose to very high levels of genuine eloquence. President Dwight said that Professor Walker's teaching seemed always a "labor of love."

Teaching was, however, a ceaseless strain. On October 22, 1875, he writes to Henry Holt, who had

invited him to speak at a Yale Alumni dinner in New York:

I am under vows too solemn to relate, and blood-curdling oaths, not to open my mouth, this term, out of the lecture room, except for the reception of food and drink.

My head troubles me, and I have to deny myself everything.

In this connection, the following, from reminiscent notes contributed by the late Professor Cross of the Institute of Technology, is illuminating:

Once I told him [Walker] that I thought there was great danger to a lecturer in failing to revise his notes, and more especially to be unready to change the total mode of presentation when new developments required it, it was so easy for one to persuade himself that the old notes were really adequate. He said that was true. He remembered that once he lost some of his lecture notes and had to revise the whole subject. It was then, and because of this, that one of his important theories, it was of rents, I believe, came to take form in his mind. "Had I not lost the notes," he said, "I should probably have kept on teaching what my father had taught before me."

Brought up under influences that were still strongly Johnsonian, trained in thinking by his father, whose language was usually robust and, by modern standards, inclined to the oratorical, Francis Walker expressed himself, as a rule, in the long rather than in the short sentence and paragraph. He wasted no time, however, upon mere flowers of rhetoric; and when he wished to drive a point home he was pithy and made good use of epigram. His greatest attribute as a teacher was his clearness of exposition. His statistical training had taught him to avoid, on the one hand, that redundancy

of argument which confuses the hearer and, on the other, that paucity of statement which leaves the listener lacking the most important bases upon which to construct his own thought. His habit of "thinking through" forbade his leaving an argument at loose ends, while his understanding of and sympathy with young persons enabled him to put himself in their place as learners.

He was most careful, too, in the choice of words. His secretary of later years writes:

. . . I remember an English economist returning something General Walker had written for a dictionary of some sort asking if he would state it differently as he had already expressed it in the same terms somewhere else. This General Walker declined to do, saying that he always chose the best words he could to express his meaning and when he had done that he would not change simply because he had used the same words before.

The chief value of his sojourn at Yale was that it gave him opportunity to systematize his thinking and occasion to embody his economic views in books which are still standard. In the years between 1876 and 1883 he issued his chief treatises, those on "The Wages Question," "Money," "Money in Its Relations to Trade and Industry," "Land and Its Rent," and his well-known text-book, "Political Economy."

His first conspicuous contribution in the economic field originally took shape in an epochal address on "The Wages Question," delivered before the Alexandria and Athenæ Societies of Amherst College on July 8, 1874. This discourse delivered "by far the most experienced and famous of the recent graduates of the College" and in which he gave a death blow to the old wages-fund theory, created a profound sensation.

Samuel Bowles wrote: "I am sure it is the great intellectual effort of your life so far."

Professor Price of Oxford wrote:

You have done me an immense kindness in sending me your paper on the Wages Fund Theory. It is admirably written—the style so strong and clear, and the sense so good. That theory is pure nonsense: oh, dear, what a quantity of rubbish systematic Political Economy is loaded with.

This was in acknowledgment of an article published in the *North American Review*, in 1875, based on the Amherst address. Before the end of that year, Walker had concluded negotiations with Henry Holt, thereafter his publisher and close friend, for the issue of a book on "The Wages Question."

The following letters from Walker to Holt relate to this volume:

New Haven, Jan. 12, 1876.

I do not feel that it would be safe for me to promise to put out the last of my manuscript before March 1, though I will try to complete my work by the middle of February. . . .

But meanwhile I have got rid of my idea of making a leisurely independent thing of the composition, altering plates at pleasure and indeed *for* pleasure, and damning the printers' eyes every other day. I will send my Mss. in good legible shape, and have done with it.

New Haven, Jan. 31, 1876.

It would better suit my native modesty to call the book \$2.50, but that comes of being a virgin author. What a "deboshed" publisher might think, my innocence cannot conceive. . . .

I am "agreeable" to have the work go over until fall, if you think it preferable. I should like to know your

decision as soon as convenient, for I am at present working harder than I should.

P. S. I wouldn't be a publisher for \$10,000 monthly. You have to deal with such a set of fellows.

New Haven, February 10, 1876.

One point only as to printing. A statistician hates to have his figures *written out*. The effect upon the eye and mind of the reader, of a contrast in amounts thus expressed, is almost indefinitely less. Therefore—if you will please allow figures to stand where I have used them, I shall feel much obliged.

New Haven, February 20, 1876.

I fear you have done too well by me, and that my work will not prove worth the money to you. You have sent more than I thought of. Hadn't we better leave the w. qu. [Wages Question?] open until you see whether the book is going off as well as you expect? I don't want to take a cent, if the tide should be against it, and the venture should not succeed.

New Haven, June 1, 1876.

If nobody else will buy my book, I propose to do it myself. *Hence*, I request that copies be sent at my charge to the persons named in the enclosed list.

While this volume had as its main objective the destruction of the too-long-established wages-fund theory, it covered also the wide field of the relations of the employer to the employed, and took positions that, in 1876, were new and radical. While never sentimental, Walker saw clearly the limitations of choice which confront the man who has only his labor to sell, urged the utmost "sympathy and respect for labor in the community," and advocated the passage of protective legislation so far as it "corresponds to infirmities in

the mass of laborers which tend to defeat their real freedom of choice in employment.”

On April 17, 1883, the English economist, Professor H. S. Foxwell, wrote, following other matter:

Perhaps you will permit me to add, as it is the first time I have had the honor to address you, that I feel, and hundreds here feel, personally indebted to you for the sound science and generous humanity (they never conflict in my opinion) of your admirable “Wages Question.” I believe and hope that what you have said on “the degradation of labour” has sunk deep into the young English mind. It is one of the principal efforts of my life to bring out strongly another feature of that book, the distinction between perfect competition and the actual struggle for subsistence, with its many unequal and distressing incidents.

I have only specified these points because of their moral and social interest: not that they exceed in purely scientific value much that you have written for us, e. g. on currency inflation and disorganization of industry.

In this connection, it is of interest to include an authoritative statement as to Francis Amasa’s general attitude in economics, prepared by his son, Francis:

All of his economic views, it should be emphasized, were characterized by strong humanitarian sympathies, which, however, never degenerated into mawkish sentimentality or impracticable utopianism. There was always a passionate regard for public welfare and for justice. An economic organization which did not conduce to both the material and the moral welfare of the masses of mankind was in his view as unwise as it was unjust; the few, whether in government or in economic life, could not be trusted to exercise unlimited or arbitrary power. The best guaranty for efficiency and justice in economic affairs was competition, and the laws should, therefore, provide for equal opportunity.

Competition could not be destroyed, in his belief, but its effectiveness might be hindered, or its benefits unfairly

distributed, either because of bad laws, or because of the ignorant, degraded, or demoralized condition of important classes of the population. Where, however, by reason of ignorance or otherwise, mobility of economic activity, and consequently competition, was hindered, or only imperfectly developed, the laws should afford protection against class or group exploitation, or other attendant abuses. These principles are opposed alike to the socialist, the monopolist and the anarchist.

Meanwhile four matters of importance, aside from his teaching and writing in the economic field, had arisen. Henry Adams had made overtures to tempt him back into the domain of journalism; he had been seriously pushed for the presidency of Amherst College; he had run, unsuccessfully, for the office of Secretary of State in Connecticut; and he had served acceptably as Chief of the Bureau of Awards at the Centennial Exposition in Philadelphia.

Henry Adams, whose recently published "Education" has thrown so much light upon his extraordinary mind, wrote to Walker, on February 29, 1876:

I want to know what you think of a scheme of mine.

The Boston Post is for sale. We here would like to buy it and make an independent paper of it. I think it necessary to our position in the State.

I have sounded some few gentlemen and think I could raise the money (\$150,000). But before going further, I must know what to do with the paper when bought. In other words, I must be able to secure the stockholders by giving them a first-class editor.

My first thought was Horace White and I wrote to sound him. But he telegraphed refusal. He has a young wife.

My second thought was Nordhoff, and I wrote to him yesterday. His answer will, I suppose, come tomorrow.

My next thought was of you. And as I want all the strings to my bow that are anywhere loose, I beg that you

will consider the subject. Between ourselves the instruction of boys is mean work. It is distinctly weakening to both parties. I have reduced my pedagogic work to the narrowest dimensions and am working more and more back into active life. So, I do not doubt, will you do. Consider what a brilliant field such a proposition opens to you. The opportunity, if it really exists, is superb. I doubt its existence only because I feel almost sure that the Democrats cannot be so foolish as to part with their organ.

Anyway it is your duty to sustain me in this effort to ameliorate the condition of mankind. Of course if the thing goes so far as to effect an organization, the selection of editor will not be in my hands. But practically the choice is very small among men of weight and ability enough to ensure success. The new proprietors will have to choose among those whom I can find. And I want to preclude them from an inadequate choice. Indeed without an editor to my fancy, I shall stir not another step.

Of course this is profoundly confidential. Don't let it out. As yet there is not consistency enough in the thing to stand up straight.

Please write me Yes at once.

That Walker's answer was far from favorable is indicated by a second letter from Adams, with which the correspondence seems to have closed.

The Connecticut campaign occupied some weeks in the spring of 1876, and Professor Walker, whose nomination for Secretary of State was hailed with delight, made a number of stirring campaign speeches. It is hardly worth while to search into the reasons for his defeat. He dwelt largely upon such national issues as that of the resumption of specie payments, and he made his appeal frankly to the Independents, whether Republican or Democrat. That he was no courtesy candidate is shown by the fact that, in a total vote of nearly 99,000, he fell only 7200 behind the successful candidate, Marvin H. Sanger.

His candidacy was evidently part of that widespread movement which culminated in the election of Grover Cleveland in 1884. It had as its object the purification of the Republican party from those corrupt elements for which James G. Blaine was the outstanding symbol. In view of subsequent history it is interesting to read the following letters from Henry Cabot Lodge to Walker:

November, 1875.

It is very satisfactory after the apathy with which one has to struggle to find some one who thoroughly is in sympathy. Our local city elections are just now a type of the contest that has got to come everywhere. Until we do as you say: burn our ships and fight the fight of administrative reform everywhere and anywhere, we shall never attain ultimate success. I want to see this campaign forced into such a shape that we shall have to stand up and be counted. If we can make losing the next best thing to winning we shall come out with a consolidated party bound to a principle and must win in the end no matter how few we are.

Mr. Schurz is building on the support of the Republicans which we may or may not get. . . . We are going to try to organize in all the towns of the Commonwealth and also make attempts on New Hampshire, Vermont and Maine. All we can do in the last named state is to make Blaine unhappy and that is important.

If you form a committee in New Haven and secure support in that state and Rhode Island we ought to be able to carry New England. I hope our supporters in the various N. E. states can be induced to meet say two months hence at Boston and organize for united action. Our first point of attack will be the Republican delegation from Mass. Schurz wants such a burst of popular ratification that Adams will be swept in at the Rep. Convention. It is hit or miss as far as that goes. I wish I could have a talk with you. Could you not come to Boston and dine with me and meet our committee? . . . You made a mistake in our respective positions. I look to you for leadership.

Boston, Mass., Dec. 18, 1875.

Since I wrote you we have agreed here on a plan of action and are pursuing it as diligently as possible. It is simply this. To organize small committees everywhere and establish connections as far as possible throughout the state. To do this without any reference to Schurz's address, we have decided to bury that for the present as far as the public is concerned, and bend all our energies to carrying the Republican delegation to the National Convention for Mr. Adams. We can work to far greater advantage inside the party lines and in case of failure can fall back on the independent movement with greater additions to our strength. But another object of far greater importance would be attained by carrying three or four N. E. states for Mr. Adams; we should effectively destroy Mr. Blaine. Blaine is our greatest danger,—neither the friend nor the enemy of reform, he would simply perpetuate the old régime. Our movement means to him political extinction and he wishes therefore to destroy our candidate and our movement altogether. His abilities and chances of success make him a man to be feared.

Cannot you form as we have done a committee at New Haven and establish connections among Republicans throughout the state so that you can when the time comes bring enough pressure to bear to secure strong Adams delegates? It is surely possible in the present loose state of political opinion.

If a movement is then made wholly within the party lines and as a party movement we have independence to fall back upon with our numbers largely increased. If you are doing anything in Connecticut I beg you will keep me posted. Each state however will have to take care of itself.

Walker's further connection with the beginning of the "mugwump" movement is indicated by the following extracts from letters addressed to him by Carl Schurz. The first is dated March 25, 1884:

I enclose a draft of an invitation to the conference which we discussed some time ago. The intention is to ask the following gentlemen to sign it:

President Woolsey, Wm. Cullen Bryant, Gov. Bullock of Mass., Gov. Koerner or Gov. Palmer of Ill., Gov. Booth of California, now in the Senate, and myself.

I have good reason to think that all of the above gentlemen will sign it, except Pres. Woolsey. With Pres. Woolsey I have never had the honor of being in personal communication, and have, therefore, some hesitation in addressing him personally to ask him for his signature. Would you be kind enough to see Pres. Woolsey in my name and to notify me by telegraph whether he will permit me to affix his signature to the invitation?

Three weeks later, Mr. Schurz writes again:

Will it be possible to induce Pres. Porter to join us openly? It would be of great value to us. Mr. Godkin tells me that some of the most prominent clergymen of this city are ready to speak out and to take part in our conference, such as Dr. Osgood, Dr. Adams, Dr. Tyng and others. This is very important aid, and I think Pres. Porter might add his name to such company. Would not also Dr. Bacon do the same thing?

Our call has created considerable stir among Blaine's friends here, some of whom thought that they could obtain the countenance of Pres. Woolsey for their favorite. I am informed that they think of sending somebody to New Haven to make an effort to that end. I hope there is no danger of its success. I must confess that I look upon Blaine as one of the most dangerous enemies of genuine reform, the more dangerous as he is shrewd enough to cover his manipulations of the machine with the fairest pretenses. I would not support him under any circumstances. I suppose you might easily ascertain whether Pres. Woolsey has any leanings that way, and if necessary, caution him. I am almost sure, however, that Blaine cannot be nominated, or, if he were nominated, that he could not be elected.

I have very favorable reports from the West. Public sentiment is rapidly turning in our favor. Some time

ago I could not think of a single man in Indiana who might be invited; but a few days ago a prominent Republican of that State called upon me and gave me a list of outspoken reformers that astonished me.

I fear I have never thanked you for the trouble you took to obtain Pres. Woolsey's signature. Let me do so now.

The presidency of Amherst having been left vacant by the death of Dr. Stearns, there had arisen, as in so many other instances, a contest between the conservatives who believed that only a minister should head an institution with the religious traditions of Amherst, and the progressives who maintained that, to meet modern conditions, a new type of president, one with broader contacts and wider experience of the world, should be selected. Samuel Bowles writes to Walker, June 27, 1876:

There is a very large party for you for president. If you could only tack a "reverend" to your name, it would be triumphant. Confidentially, three-fourths of the Faculty have pronounced against —, and about half of the whole name you. Even you would have blushed, too, to have heard the remarks of one of the trustees, today, altogether unused, as he is, to public speaking. I always told you your lack of evangelical piety was your great failing. But you have been made a trustee of the Mount Holyoke females, and that I take as a personal affront.

You are a sly old humbug, and I am going against female suffrage, henceforth. The girls can't be trusted. Bad luck to them!

Further light on the situation is thrown by the following letters from Professor Roswell D. Hitchcock. The first is dated July 6, 1876:

I know the fine feeling which dictated your letter to me of June 30, with regard to the Presidency of Amherst College. Of course nobody imagines you had anything

to do about the matter. Popular men are liable to popular onsets of this sort.

If the College fares as well as it ought to, somebody must accept its Presidency who has at least some good reasons for *not* accepting it.

The Committee of five are very busy just now. The "Lay Departure" has more friends than we thought for. But there are many points to be cared for.

Professor Hitchcock's second letter is dated July 13:

If Professor Seelye accepts the nomination tendered him, Amherst College will get a new President July 28th, and move on, with increased momentum, in the old way.

If he declines, the only other clerical candidate yet mentioned is Dr.—, who is looked upon by some at least of the Trustees as not quite up to the level of the position.

The idea of a Lay Presidency, which has steadily grown in favor, may therefore at last carry the day. But the President of Amherst College must be squarely and cordially evangelical both in opinion and in feelings; helping the religious life of the institution, especially in seasons of religious awakening, by strengthening the hands of the clerical Professors.

The only layman spoken of is yourself. Nothing may ever come of it. But if either your conscience, or your ambition, or, better still, the two together, should move you to think well of the position, I wish you would so far confide in me as to put me in possession of your ideas and convictions, to be used with whatever discretion you may give me credit for.

If elected President, you will be also Professor of Political Economy, with a clear field that way; while as President, as you well know, you would have a position such as no mere Professorship, there or anywhere else, can give you. "Why, then," you may ask, turning on me, "why did you not practise as you preach?" "My good friend, I am, or shall be next month 59 years old."

Professor Seelye did accept and gave admirable service until 1890.

CHAPTER IX

THE PHILADELPHIA CENTENNIAL

THE fourth extra-professorial experience was of profound significance in Walker's career, first, because it gave him a wide range of new contacts, especially in the field of education, and, secondly, because it led, indirectly, to his crowning achievement as president of the Massachusetts Institute of Technology. That experience was as Chief of the Bureau of Awards at the Centennial Exposition in Philadelphia.

In the present era, especially since the World War, it is difficult even to imagine the provincialism of the United States up to the last quarter of the nineteenth century. The chauvinism, notably, in relation to England, which had been sedulously cultivated in most of the school text-books, had been newly inflamed by the attitude of Great Britain during the Civil War, and by the influence of the rapidly increasing Irish population on the Atlantic seaboard. Few, except writers and painters, had traveled outside the United States, and the even smaller number of notable visitors from abroad had aggravated our national self-sufficiency by mercilessly pointing it out.

Proud of what the country had achieved in less than a century of national existence, we had flattered ourselves into the belief that we could always stand alone, could develop a civilization not only independent of, but vastly superior to, that of the European countries, and, by discouraging commerce, both material and human, across the Atlantic, could keep ourselves im-

mune from the social diseases and degeneracies bred in the old nations by ages of military despotism and by aristocratic monopoly of most of the good things of life.

In this atmosphere of self-complacency had grown up a system of education that was wholly inadequate to a great nation with limitless resources, a polity that was stupidly narrow and over-reaching, an architecture which horribly affronted our own colonial traditions, a literature that was almost ludicrously parochial, a press that practically ignored everything outside our own borders, and standards of art which were beneath contempt.

Were it possible to reproduce the daily living of the conventional "best people" of the 1870's, with its narrow interests, its drab or flamboyant ugliness, its veneer of supposed polish on a background of general ignorance, the present sophisticated generation would believe it an extreme caricature. The essential qualities of mind and heart were, of course, there; the simplicity of life had much to recommend it; the things that were lacking might truly be called impermanent and even superficial; but if the seventy or eighty years of a man's existence are for the purpose of giving him breadth, experience, outlook, æsthetic and spiritual satisfaction, then very much was wanting in the life of even the most fortunately placed men and women of the United States in the years immediately following the Civil War.

Whoever was most responsible for the idea of celebrating the one hundredth anniversary of the Declaration of Independence by bringing together, at Philadelphia, an exhibit of the best products, useful and artistic, of the leading nations, did incalculable service to his country. Those foreign nations, eager to secure our rapidly expanding trade, sent of their very

finest; the managers of the "Centennial" chose wisely their site and adorned it with the best available at that æsthetically lean time; and the response of the people was phenomenal. From that summer at Philadelphia may be accurately dated the material, artistic and social progress that so astonishingly distinguished the forty years preceding the World War and that now finds us the one great nation to which all the others look for leadership and for supreme achievement.

On July 8, 1875, Charles Francis Adams, Jr., son of the Civil War minister to the Court of St. James's, wrote to Professor Walker:

Couldn't you arrange your professional duties in such a way as to get a leave of absence during the Centennial year to organize and run the Massachusetts department in the Philadelphia Centennial? You see, I bolt at once *in medias res*. The fact is that we are in a devil of a mess about the concern. That damned old blatherskite, —— has got his finger in the pie, and the thing is done gone up unless we can get into the office of Secretary of the Board a man strong enough to run him and it. I feel a very deep interest in it, as the saving of that can alone justify our mission to Vienna two years ago. . . .

The Governor has sent to me to advise with. He didn't offer me any position, and I volunteered a refusal of anything which involved work. He kindly intimated, however, that he would pay some consideration to anything I suggested, and I told him that a *man* was wanted,—no more and no less. I then suggested you as the best man attainable, and the suggestion was well received.

May I press you for the position? The appropriation is ample (\$50,000) and unconditioned,—the work very important and one for which your Census training peculiarly fits you. It would bring you into connection with a great many men worth knowing, and at an exceptional time too.

Don't tell me that your professional duties stand in the way. I know better! You could get a leave of absence

for that purpose without trouble, and the College would be gratified to have you there,—it would reflect honor on its corps of instructors. You could easily get a *locum tenens* for eighteen months, and so settle that.

You may ask why I urge you for a place which I say I would not take myself. In reply I very frankly say that, as I get older, I begin a little to know myself. Some things I can do,—others I can't. At Vienna I was a round peg in a square hole, and I resolved never to get into a similar hole again. With you it is different. Here you would be just in your element.

This was soon followed by three most urgent letters from Horatio G. Knight, who seems actually to have been commissioned to find the right man; but evidently Walker declined the invitation.

His native state was not alone in turning to him for conspicuous help with the Philadelphia Exposition. On November 29, 1875, General J. R. Hawley, of Connecticut, wrote from New York:

No decisive action was taken in the matter of a Chief of Judges at the last meeting of the Executive Committee of Thirteen, because our sub-committee was not ready to report. Goshorn and myself only had seen you. Mr. Morrill retains a very kindly recollection of you as he saw you in Washington and is quite ready to ask you to take charge of the work. . . . It will be a good thing if you speak French or German, at any rate read them. I don't consider it essential myself—some may, but it would be *desirable*. I am exceedingly *anxious* to get you into this work, feeling perfectly sure that you will do it well, so you will excuse the freedom with which I speak. It is only to put you into the *inside* of the position.

This was soon followed by a formal tender of the position of "Chief Officer of the Department of Awards" by the Director General of the Exposition, Mr. A. T. Goshorn. There appears to have been, how-

ever, some misunderstanding, for General Hawley, on December 23, 1875, writes to Walker:

Returning from a two days' trip to New York, Mr. Goshorn greets me with some very bad news. I thought we had a very important matter very satisfactorily settled, and we felt authorized to propose your election to the Executive Committee. The only consolation I have is that I am glad to have paid you the compliment anyhow. But I beg you to reconsider. Pray tell me, with absolute frankness, whether there is any objection that we can remove. The name or title you may bear; the freedom of action to be accorded you, the compensation—all this can be modified to suit you. I should be glad to have the Scientific School honorably identified with this great enterprise.

Mr. Bancroft is right: it is to be the greatest exhibition the world has seen. Gradually jealousies, bickerings, mean criticisms, slanders are disappearing. The opening of the Exhibition will be its triumphant vindication. Pardon me for saying it: no work that you can possibly do, lecturing to the School on Political Economy or History, will be one-tenth as valuable to the country, or honorable to yourself. I should hope that we could offer you compensation enough to enable you to hire a substitute and have something left. Should you come we should be only too glad to tumble the whole work into your lap and give you full discretion and full honor, with our thanks.

You would be brought into close contact with a large body of able and honorable men—not only the 200 judges, but the commissioners of foreign countries and the distinguished gentlemen of all nations who will visit us. It seems to me impossible that you could devote a year to any imaginable course of study or travel that would better fit you for continuing in your professorship.

This earnest plea was ultimately effective, though there are evidences that Walker held back for some months, partly because of his sense of obligation to Sheffield, and partly because of a fear that, as proved

to some extent to be the case, the Commissioners would not actually give him the free hand which had been promised. He must have accepted, however, before the 24th of May; for, in a rough draft of a letter addressed by him some years later to a chronic fault-finder he says:

. . . The first meeting of the Judges was on the 24th of May, when they were addressed by General Hawley the Pres^t of the Comⁿ, in welcome, and by Mr. Goshorn, the Director General, in definition of their duties. Both speeches were printed at the time, and will, I presume, be found in the proceedings of the Commission, of which I have not a copy. The Judges were never assembled, as a body, after this occasion.

It is not my recollection that the Judges were then or at any subsequent time specifically instructed never under any circumstances to make reports on the comparative merits of exhibits. They were instructed that it was desirable that the reports should in all cases specify so far as practicable the *positive merits* of each article recommended for award. They were instructed that *mere comparisons*, such as saying, this is better than that, without the reasons for such a preference being given, and especially general statements, such as that one article is the best of its kind, without the grounds for such an assertion, were to be avoided whenever the nature of the subject matter would allow any other and better mode of rendering judgment.

This view of the Judges' duties was contained in the original scheme of adjudication adopted by the Comⁿ; in the address of the Dr. G. on the occasion referred to; and in the instructions conveyed by me from time to time as occasion required to the several groups of Judges. . . . This view was also taken by the Commission, when in session during the closing weeks of the Exhibition, in passing upon the reports of the Judges, such comparisons as

are referred to above, having been generally, if not invariably, stricken out by the Judges as improper.

This letter is particularly interesting because it presents the substance of the so-called American system of valuation of Exhibits, about which much controversy raged during and after the "Centennial."

Quarrels are inseparable from any notable enterprise where precedents are few and where workers are many, ambitious and usually egotistical. They are specially rife when, as in the case of exhibitors' awards, large financial interests are involved. Furthermore, the Philadelphia Exposition suffered conspicuously from the rivalries of the General Commission, a national body, and the Finance Commission, a group of Philadelphia men, to the zeal of the Executive Committee of which the extraordinary success of the "Centennial" seems largely to have been due.

Walker kept as far as possible aloof from these wrangles; organized his Bureau of Awards with the efficiency and experience born of his long practice in such work; kept his polyglot group of judges in good humor by his tact and urbanity; and maintained his health and good humor even during a Philadelphia summer. On July 26, he writes to Holt:

Your dreams have something less than the verity of the dreams of Pharaoh or Nebuchadnezzar (if that's the way Mr. N. spelled his name), for a heartier and healthier man isn't to be found at the Great Exposition than Your humble correspondent. The weather has been simply damnable, as Dr. Porter would say; but, through it all, I have smiled and smiled, and fanned and fanned, and kept both flesh and spirit in good condition. *Now*, we have a delightful change, and "the grounds" are charming again.

I am proud to learn that, by my repeated orders for complimentary copies to be sent abroad and around at home, I have exhausted the first edition of the Wages Question. I will send a memorandum of changes which require to be made for the second edition, and will then do my best to take the edition off your hands. Your remarks on the unappreciativeness of the book buying community (who do *not* buy books) are fully endorsed by the author.

But you are at Dunmore, rowing in your shirt-sleeves, with Mrs. Holt in the stern of the boat; and I am here, without Mrs. Walker, and having no sort of a lark at all. Who cares whether books sell or not?

The suggestion you make as to Lake Dunmore is very kind of you and very tempting to me; but I fear it is too good to be realized. I am taking my hard times (and hot times) in this world, hoping to get considerably ahead, in the next, of you fellows who have your good things now.

That Walker's coadjutors were not only satisfied with, but enthusiastic concerning his administration of a difficult task is shown by a document drawn up and duly signed on October 21, 1876:

The Bureau of Awards.

Exhibitors to the World's Expositions in Europe were not satisfied with the manner of the awards. At Vienna, the last trans-Atlantic Exposition before ours, they had juries of awards numbering to over 800. The diplomas and medals of various sorts were about seven. It required much courage to change from juries to judges, and from 800 to 200, and from seven awards in variety to one. But it required more courage, talent, tact, and executive ability to carry out this radical change and satisfactorily, and that, too, with no precedent to follow. When, therefore, the Chief of the Bureau of Awards,

GENERAL FRANCIS AMASA WALKER

took command in room No. 11, Judges' Hall, it was generally understood that he had a task before him fraught with peculiar responsibilities, full of honors if successful, and failures of no ordinary kind if inadequate to the herculean task. Almost on the first day of the assembling of the Judges, the whole number of 200 answered to their names. With a modesty rarely equalled, General Walker went to work. His ability to lead and command so distinguished and carefully selected a corps of experts from all parts of the world—100 from Europe and 100 from the United States—was at once manifested by his thorough organizing qualities. The business of the bureau increased rapidly; its importance grew to immense proportions. Delicate, complicated questions had to be settled promptly, and the chief of the bureau was tested thoroughly. Very naturally, under these circumstances, a general desire exists to know something more of General Walker. We give it below from official and authentic sources.

Judges' Award,

made by General Walker's coadjutors, on one of the pages of the judges' books, and for which, namely, the liberty taken in the premises with their chief, the judges desire me to ask his pardon in advance. It is in form, manner, and phraseology like the original entries, namely:

Department:—	Special
Exhibitor	—The United States of America
Group	—Genus Homo
Class	—Number 1
Object	—A thoroughly developed man, Chief of the Bureau of Awards.

The judges recommend an award for the following reasons:

Excellence in physical, mental, and moral development. Thorough economic use of available powers. Promptness and fidelity in executing important trusts. Patient endurance under trying circumstances. Urbanity of man-

ner, and justice to all. Capacity and readiness to work up from the smallest details to the most comprehensive entirety.

Among formal recognitions, Sweden and Norway appointed him a Knight Commander of the Swedish order of Wasa, 2d, Spain made him a "Comendador" of the Order of Isabella the Catholic, and the Spanish Commission to the Exposition presented him with two Toledo swords.

Eight years later, Mr. John Welch, the able President of the Centennial Board of Finance, testified to Walker's competence in the following letter addressed to him at the Institute of Technology:

The stockholders of the Centennial Board of Finance have laid upon us the serious duty of asking Congress to refund the loss incurred by the Exhibition of 1876 say \$1,700,000 against more than \$8,000,000 which that Exhibition of 1878 cost France.

As the Country benefited so largely the request ought to be looked on as just. No one, probably, knows better than you how widespread its benefits were, and as your testimony would be invaluable to us, particularly if it be as the head of the important institution under your charge, I hope it may be agreeable to you to send me a letter, addressed to the Senate and House of Representatives in Congress assembled, expressing your views as to the advantages gained by the Country at large, and, especially, by its influence on our industries, and our educational institutions.

How meticulous all the judges were is indicated in the following extract from a communication from Sir Isaac Lowthian Bell, the famous iron-master, one of the English members:

The catalogues came duly to hand. No doubt as you say the want of these documents added largely to the labours of the Judges. If there is any ground for the

appointment of a court of appeal in connection with the awards of Group I so far as Iron and Steel are concerned it must be due to the absence of the catalogues.

After completing our list I was at the trouble of walking up and down and across the different buildings several times with the view of discovering anything which might have been overlooked.

Having been invited by the Commissioners of Phil. Exⁿ. here to report on my own group I pointed out to them that no single individual was competent to do this in a sufficiently capable manner. I therefore asked permission to confine myself to your Coal & Iron Trades. I have compared those of the U. States with our own and have endeavored to show how recent events (High Prices here and Protection with you) have affected injuriously the interests of your Iron makers. I quite expect not to "escape whipping" by some of your journalists.

For two or three years after the close of the Exposition, Walker followed up vigorously every criticism, and watched jealously the successive reports as they were issued. He writes, for example, to Mr. Goshorn, December 30, 1878:

You will remember that I wrote you twice respecting the award . . . for Steering Screw Propeller, (No. 23 Group XIX). The report of the Judges in this case was fraudulently altered by some one. The words "*adapted to light draught vessels*" have been added in the printed report.

When I last heard from you on the subject you informed me that instructions had been given for the correction of the stereotype plates, in this particular. Mr. Steel has, however, just sent me some copies of the Reports, in which this error is perpetuated.

My honor is engaged in this matter and you will, I am sure, excuse me for speaking frankly and acting, if need be, decisively. I feel perfectly confident that you have said and done all that you thought necessary to secure the proper correction; but the wrong remains un-

remedied. Unless something can be done speedily to afford assurance that this thing is set right, I shall publish a card in the public prints, denouncing the fraudulent practices which have perverted the intentions of the Judges of Group XIX. . . . I have already put up with this thing so long that my patience is becoming exhausted, and if I do strike somebody will drop.

Despite these minor irritations, Walker regarded his months at Philadelphia in the summer of 1876 as among the most useful to the country, as well as valuable to himself, that he had ever spent. They affected his subsequent career in two ways: first, by greatly stimulating his earlier interest in technical education, because of what he saw in the Exhibits from Russia, Germany and the Scandinavian countries; and, secondly, by bringing him into close contact with the then President of the Massachusetts Institute of Technology, Dr. John D. Runkle, who was making at Philadelphia a study of the Russian system of manual training, and with Mr. John Cummings, at that time president of the Shawmut National Bank of Boston, for many years Treasurer of the Institute, and a prominent worker at the Centennial. When, a few years later, a vacancy in the presidency of Technology was impending, both men became active in persuading their friend who had shown at Philadelphia so many rare qualities of leadership to accept the office.

Another outcome of the experience at the "Centennial" was an invitation from President Hayes, urging Walker to accept the position of Assistant Commissioner General for the Paris Exposition of 1878, and intimating that the duties of Commissioner General might devolve upon him.

This appointment was accepted, and General Walker made his plans to go to Europe in the latter part of

June, 1878. Meanwhile, an invitation had come for the United States to take part in the International Monetary Conference to be held at Paris, during the summer, to discuss the perplexing question of monetary standards growing out of the demonetization of silver in 1873. On June 14, Walker writes to Holt, from New Haven:

I would like to run down to see you . . . but that I have just received some despatches from Washington showing that my appointment on the Silver Commission is under discussion, and I may be called away at any hour. I say, *under discussion*, though I know nothing of the probability of the appointment, as I have not applied for it. I have no one "working" for me.

The delegates were to be appointed by the President. On the 20th, Mr. Evarts, then Secretary of State, telegraphed:

I have received your telegram which I understand as implying your acceptance of the appointment as commissioner to the International Monetary conference. If you undertake the office it will be necessary for you to meet your colleagues here and receive the instructions of the Department. How soon that can be arranged can only be learned by correspondence. Please advise me as to your acceptance of the office and your preference as to the time within which you would wish to meet your colleagues and receive your instructions.

Sailing was evidently put off, for, on August 23rd, Walker writes, from the Hotel Meurice, Paris, to Professor Colby of Yale:

I fear I shall have to call upon you for assistance next term to a somewhat greater extent than I had anticipated. It looks as though I should have to miss some weeks, at the beginning of the collegiate year, and I hope you will be able to help me through, by carrying on my classes.

We have now been in Paris three weeks, of which two have been occupied by our Monetary Conference. There is a goodly representation of States here, but a thousand difficulties beset every effort to accomplish the purposes of our mission. We shall make a sincere and strenuous effort in justice both to the law and to ourselves.

Paris is fortunately very cool and comfortable this season. We had a few painful days in London, but none here.

He was accompanied on this journey by Mrs. Walker and their eldest son, Stoughton, then barely twelve years old. It was characteristic of Walker that, although the boy had come to the steamship merely to bid his parents good-bye, the father could not bear, at the last moment, to leave him behind. He hastily secured a berth and took the youth, baggageless, along.

The summer proved both fatiguing and disappointing. General and Mrs. Walker had expected to attend a scientific congress, and to travel, in Scandinavia. Instead, as already noted, he was appointed to the Commission at Paris. They went first to London and then on to Paris, where Walker stayed from August 1st to the end, with the exception of a very few days in Switzerland and Northern Italy, to see his family. The United States, in its efforts to reestablish the coinage of silver, was, as Walker said, "beaten horse, foot and dragoons," and all three commissioners were thoroughly disheartened and discouraged.

Some of the time the weather was hot and disagreeable, and the work was hard. When Walker got back from his little run to the south, he found that the Commissioner who had volunteered to write the report was waiting impatiently for his return, and not only had not done a stroke of work on it, but said that Walker must do it. So, in the midst of the crowd and excitement of

the September fêtes, he sat in a little room on the fourth floor of his hotel, with his coat off, working for dear life. These details are from a letter of Mrs. Walker's to one of her sisters. She closed by saying, very truly: "It is always his luck to catch the brunt of it when there is any work to be done."

During that sojourn in the heat of Paris, Walker wrote, on August 10, 1878, from the Hotel Meurice to his elder daughter:

My dear little Lucy,

I am very glad to learn by the letters of Aunt Libby & Aunt Lucy, that you and your brothers, & little Evelyn are so well and happy, while your mother & I and Stoughton are here in Europe. It is very nice to know that you have so good a time, helping Grandpa farm and riding the cows to water twice a day. I wish very much I could see you now and I guess I shall wish so more and more every day until I see you. Wherever I go I look about the streets for a big girl that is half as nice as mine, and then for a little girl that is half as nice as mine, but I don't find any. There are some very good & pretty little girls, & some very comfortable looking big girls; but when you come to talk about their being as good as those I've got, why it is simply ridiculous. There isn't a girl in Paris that can get in the oats & rye, and look out for her baby brother, & take care of her rickety old aunt,* anything as well as my Lucy.

Pretty soon, some day, I am going with Mother up to the Exposition to see what we can find for Lucy. It will have to be something pretty nice. There are some fine steam engines up there & we may conclude to buy one. We are hesitating to decide between that and a threshing machine we think you would like very much and that would help you along wonderfully with the crops, only it would be rather late for this year.

* He was always joking about the alleged infirmities of a young and lively sister-in-law.

Walker returned in October. The negative result of the Conference is referred to in the following letter to General Walker from Senator Justin S. Morrill:

While you were here I had intended to have some conversation with you in relation to your conference at Paris. I see it resulted in failure, and I had very little hope of any other result. The prompt action on the part of the Latin Union, in wholly abandoning any other issue of silver, is rather significant; as it is, the full burden of supporting bimetallism or silver is upon the U. S., and unless we can get some new legislation by which to limit the amount of silver it is only a question of time when we are to encounter a great disaster: that is to say, whenever the business of the country shall change from a gold to a silver standard I think it will prove a very great check to our future progress.

If you are to be here again soon I would like very much to see and talk with you upon this question; and it is possible that you might like to appear before the Finance Committee and give us an interesting talk upon the subject.

Because of his success with the Census of 1870 and of the clarity of his discussions of statistical problems, Walker was conspicuous among the members of the Statistical Congress which was in session at Paris while he was there. He served as a delegate to that Congress as well as to the Exposition, to the International Monetary Congress, and to a special Conference called to consider a Franco-American Treaty of Commerce. He had now a high international as well as a commanding national reputation.

CHAPTER X

MONEY

To return to Walker's experiences as a teacher, on December 11, 1876, he had declined an invitation from President Gilman to a professorship in Johns Hopkins University, in the following letter:

A conflict of duty and inclination alone has caused me to delay so long my answer to the most flattering invitation I have ever received, that, namely, to assume the charge of political and economical Science at the Johns Hopkins University.

Both interest and inclination have strongly drawn me to go and have made me very reluctant to decline, but after getting back from my very busy six months at Philadelphia and looking over the ground here, and renewing my daily relations with the School and my colleagues, I do not feel that I have the right to go.

My long absence this summer and fall has put me under an almost painful sense of obligation to those who have filled the gap for me, and now, after doing scarcely any duty for seven months, to turn about and accept an invitation, however flattering, elsewhere, would so strongly savor, to me at least, if not to them, of ingratitude, that I must give up the prospects in which I have so long indulged myself.

I beg to return to the Gentlemen of the Board of Trustees and to yourself, my sincere thanks for the honor and privilege offered me.

This is but added evidence that Walker's New England conscience made him always see the other person's

point of view, and act in its light as well as in that of his own interests. However, he accepted "with very great satisfaction" an appointment to Johns Hopkins as non-resident lecturer in the department of National Economics. Earlier, on April 10, 1876, he had written to President Gilman:

I was about to answer your note enclosing a sketch of your special courses projected for 1877, when I received what appears to be the complete thing, with your admirable free Scholarships.

I see no reason for altering the portion of the programme which relates to me. I rather hope to go abroad to attend the Statistical Congress at Pesth, and bring back ample material for my course as announced.

By November, however, while still at Philadelphia, he had reached a new conclusion and wrote, on the 4th, to Gilman:

I have been querying within myself for some months whether I should not write you, to suggest a change in the subject of my Lectures, next Spring.

The universal agitation of the Currency Question, arising out of the Silver problem, seems to make this a singularly favorable occasion for taking up that question scientifically and historically.

I think I could do for this question what I have done for the Wages Question, sweep away much that obstructs the proper discussion of it, and at least put the issues involved in a distinct form, even if I could not contribute greatly to the solution.

On the 20th, he wrote again:

After great effort, I broke away from Philadelphia on Saturday, and am, at last, home again. I wished to get off to Baltimore for a day; but my family and my

classes were in such a condition as to make my longer absence simply indecent.

The more I think of the matter, the more strongly am I impressed with the policy of taking up the Currency Question at Baltimore next Spring. It is the question now everywhere agitating the public mind, equally in India as in England, in the United States as in Germany.

I hope you and your trustees will see the way clear to authorize the change of programme.

The suggested alteration of subject was cordially agreed to. Out of this course of lectures at Johns Hopkins grew his second important volume, that on "Money." As he explains in a letter to President Gilman, just as the course was about to begin, "I feel there is rather more left of the subject of Currency than when I began on it, though I have done 'a right smart heap' of work on it."

While the course is in progress he writes to Holt:

Am decidedly rested. My third week is gone and the sight of the goal, and the thought of the babies beyond the barrier will give me courage and strength to go through handsomely.

I shall get out of this a week from to-day.

After such an orgy of work—for no other term expresses the zeal with which General Walker threw himself into an undertaking like the Johns Hopkins lectures—he usually had to give himself a more or less enforced period of rest. It is therefore not surprising to find him writing, from New Haven to Holt, on August 19, 1877:

My family are all very well. Mrs. W. and two of the babies are with me here. Four of the children—the oldest 4—are at Greenfield, with affectionate maiden aunts. I have been loafing steadily all summer, too lazy even to

go away from home. I did go once as far as Boston, but stayed but a few days, and gave up, out of pure shiftlessness, a plan of going down East.

I want to print my book on Money this fall. Does the spirit move you to take it up? And, if so, what about copy? I have just taken up my Mss. in earnest again, at the point where my Baltimore lectures left it, and shall lick it into book-shape as fast as possible. There is going to be a general fight over the Currency this winter, and I want to be counted in.

This evidently drew inquiries and offers from the publisher, to whom Walker wrote again, on August 31st:

As to the *Book*.

My Mss. will be about as long as that of the Wages Question. The books will be as near twins as possible, only I hope *this* will sell 100,000,000 copies.

The terms are agreeable. I can furnish all the Mss. within five or six weeks—the first of it, just as soon as I get back from Saratoga, if you want it.

My subject is Money. I have carried along that horrid Yankeeism “Currency” as long as I can stand it. I only write now of Metallic and Paper Money.

My heart has been in the Shipka Pass for two weeks. I wish I’d been there.

On September 23, Walker wrote again to Holt:

The only trouble with your suggestion as to title is that the subject is *not* treated with special reference to present or to American interests, needs or feelings. It is a systematic and more or less (let us say, considerably more) learned treatise on the whole theory of Money—with a good deal of the history of money thrown in to illustrate the principles.

The work will be simple enough for anyone to read, but it is not written “for the times.” Indeed, I haven’t a

particle of missionary spirit about me, and don't care a sixpence for all the proselytes in the world.

By the way, the London Quarterly Review for July has the following:

"When Canning recognized the South American Republics, he declared, rather magniloquently, that he called a new world into existence to redress the balance of the old. Australian and American economics, as represented by Prof^s. Hearn and Walker (we are glad to see the latter quotes the former), give fair promise of redressing the balance of good sense, disturbed in old Europe, on the much vexed subject of the supposed rival interests of labour and capital." The Review makes several quotations from the *Wages Qu.*

My own impression remains, that the word Money, simple and single, will make the best possible title for the work.

As to the Pol. Econ. for the Am. Science Series, I shall have to *refresh my memory!* Is it a small text book, or an elaborate treatise: 250 pp. 16^{mo} or 450 8^o? I could get out either this winter.

The "Political Economy" referred to in the last paragraph is his well-known text-book, which was not published, however, till 1883. Regarding it, he had written to Holt, as far back as December, 1876:

Political Economy—Must I? Perhaps I should say, with Mr. Pamplechook, May I? . . .

The text book, do you want it, really want it? now or soon? I have heard nothing of others in the same series and I have a modest notion that my work ought to come after the *Scientific* Character of the series is pretty well established, especially as Pol. Econ. is, as yet, not much of a science, anyway.

"Money" was published in January, 1878. Referring to the initial copy of it, the author writes to his publisher:

The book *does* look uncommonly well. I would not have believed that two words—even though one of them was Walker—could be made up into such an effective shape. The tone of the title is admirable.

I ought to have said this in a letter (which was not) written Sunday p.m. but I have been fiendishly busy—I believe Satan is the only person who is never charged with neglecting his duty, and who never wastes an hour. Here's to copies!

I am horribly ashamed that the book is so big. I could kill myself with rage at all beyond 450 pp. but then, there would be my six children, and even the copyright of my publications could not feed, clothe and educate them. So I must live—to write other books.

When Benedict said he would die a bachelor, he did not think he would ever live to get married. When Walker said he would get out his Pol. Econ. this winter, he never dreamed it would be Jan'y 13, before he should see a copy of *Money*. Besides he was a darned fool anyhow.

But I am really going to try and see if I cannot get out the little science book. There is no question but that it will be an uncommonly valuable and interesting book, if I write it. The main uncertainty attends my writing it. Really, my dear fellow, I am worked to death with forty-seven jobs which I have had imposed on me. I have 20 lectures to write for Baltimore by April 1 and am reading night and day on the subjects I have undertaken to discuss. Then I have—Oh dear! that confounded Phil^a thing, a report on the Census, a biographical sketch to which I want to give some brains, and what not, else.

Quaintly, on February 4, he confesses an error in “*Money*”:

I shall have to “own-up” to a blunder in quoting Goldsmith as Hood. Advices from all quarters are pouring in on me, to that effect. I take it as a high proof of the gen-

eral accuracy of the work, that twenty people have discovered this, and no one has pointed out any other error.

It should be

“The dog it was that died,”

Goldsmith

But then, I never was one of them . . . literary fellers. On my scientific side I am impervious to error!!

Among the “advices from all quarters” was the following characteristic letter from Henry Adams:

1501 H Street, Washington, 17 Feby: 1878.

Your book after considerable delay reached me last week. I will not say I have read it, but I have read parts of it; and have tried to clear my mind by the pure light of your wisdom. I have also tried the light of W. G. S.’s [W. G. Sumner] letter, but with little success.

As we are all talking silver here, and no one understands it, we found the book opportune, although it asks our own questions back again in a rather Sphynxian accent. But the attitude you take about silver is, I doubt not, the wisest. I have found myself obliged here to resort to questionings and silence. Instinct alone guides our legislation. But I confess it bewilders me to see a sensible man like J. D. Cox avowing himself determined to unsettle all our fixed relations merely on the theory that some future occasion will justify it. The only parallel is in little Alice where the queen yells when she is going to prick her finger.

The Bland bill will become law, I suppose, in its cruder form. The veto can hardly affect its passage and we here expect no great shakes of a veto. I am anxious to see its workings. Long experience has taught me that things never turn out in politics as I think they will, and that good generally comes from confusion. I suppose ten years will settle the silver question as ten years solved the bank problem, but I am anxious to know how.

I am not competent to criticise you like “Hertzka’s translator,” but I would suggest that the line quoted on

P. 262, "the dog it was that died" belongs to Goldsmith, not to Hood. At least, that was always my impression as a boy, since when I have not seen the verses.

Are you not coming to Washington this winter? To the man who can get on a stool high enough to see over the crowd, the spectacle is not without entertainment. But this process of elevation requires that one's head should be in the clouds; that is, a trifle solitary and cool. I am used to it and "rather like it," but it does not suit everyone.

The following intimate letters to his publisher are delightfully characteristic:

I know nothing about ——'s qualifications for his post. He may be the best man in the nation for the place but those who appointed him neither know nor care what qualifies a man for a Professor of History. The fact that he is a good fellow, discreet enough to smile brightly and bewitchingly when he has nothing to say, or would rather say nothing, has been about the college for some years and has made himself useful and agreeable to everybody, especially the President and his family,—these are reasons abundant, reasons sufficient to those who make such appointments, why he should be appointed.

Professor of History forsooth? Are there not Eliot's History of the U. S. and Doyle's, with maps and revisions by Walker, and Bancroft's and Hildreth's? Can he not read these? Pretty state of things, if a humorous, clever fellow cannot be appointed a Professor of anything if there's an appointment available.

Now, mark you, I'm not saying that —— isn't a Roschius or a van Maurer, but only that it isn't of the least consequence to the appointing powers, whether he is or not.

Dunmore, I fear, is not to be. Madam scoffs at the idea of getting two hundred miles away from her base of supplies and operations.

New Haven, Oct. 22, 1878.

I was sincerely in earnest in my "horse talk" the other day, but my wife gives me little encouragement in my disposition to have a beastie of some kind in my stable this winter. She won't promise to drive out at all, and as I never go out for any pleasure it gives me, I fear that, though I have room in my stables and barns for three horses, two cows and five carriages, I am destined to go through another year without a bit of horseflesh, or so much as a young calf (not human) to my name.

I am mighty glad to be home again and despite a squally baby, I am happier than I was with my legs under the Marshal President's mahogany taking a snack at the Grand Vefoir.

My cold dried up—literally—within three days of my arrival. Your box of Trochees, or whatever they are called stood me in good stead, and now stands empty before me, honorably preserved on account of its good deeds.

New Haven, Oct. 25, 1878.

Before receiving your letter today, I had written that "circumstances over which the tenor has no control," seem to forbid him to keep a horse this winter. I wish my wife cared for one. It would do her lots of good to drive, and give the childers lots of fun. As for me it is not once a week that I have two hours to spare for any such fooling.

As to the book, I really think it would be a good thing. How many people know what the Irish Prison system is? How deaf and dumb children are taught? How paupers are cared for and tramps dealt with, in foreign countries? A little handbook on such subjects would be invaluable.

You speak of my own contribution. I still feel, as I expressed myself in the early part of the year, that I could not put my system into a 16^{mo}. of 150 pp. before elaborating it somewhat in a larger work. If there is to be anything original in my views—and if not, I should not care to publish—it should be developed first with abun-

dance of room for argument and illustration. After that—after it has taken its pelting from the critics—it might be reduced to a simpler form of statement.

Besides it seems to me that the publication of a handbook would kill the sale of a larger work published subsequently.

I have been at work somewhat since my return writing out my definitions and preliminary discussions. I have 12 Lowell Institute Lectures on my hands for January and February. After that I propose to give myself uninterruptedly to bringing forward my pol. econ. My idea is a work of the size proposed for your scientific series—say 400 pp. of a not large octavo.

New Haven, Dec. 21, 1878.

Do you remember young Bailey in “Martin Chuzzlewit?” If so you doubtless recall how, when the great boarding house dinner at Mrs. Todgers’ was coming off, and Charity and Mercy Pecksniff were dressing in their room, young B. in passing their door on one of his many errands, put his mouth to the keyhole and whispered—“There’s a fish—don’t eat none of him.” The application of this remark is to Mr. —

His wit was always ready. It is told of him that at one time when he was travelling in a railway train he was much annoyed by the chatter of two small politicians who were loudly gloating over a local victory which their party had gained a few days before. One of them presently turned to General Walker and remarked in a swaggering manner, “Straws show which way the wind blows—eh?”

“There is another old proverb about straws,” suggested Walker.

“What’s that?”

“Drowning men catch at them.”

In connection with "Money" the following from Rev. Washington Gladden is of interest:

I wish that I knew more about money—in several senses—but I should like especially to be able to do justice in a review, to your book. . . .

I have been a little more hopeful of co-operative experiments that you are,—but with the general spirit of your treatment of the labor question I heartily agree. It is a real comfort to find a work on political economy that has some moral sense to it.

Also the following from Professor Perry, of Williams:

You have made a big stroke in dropping the infernal word "currency." I claim some merit for dropping the technical use of the word "wealth"; but I believe your negative contribution is even better than mine. . . .

I am glad you stand up for your father. I have a very high respect for his memory. He was too much in bondage to Adam Smith, but his genuine and hearty spirit of inquiry and research and recognition of others is beyond all praise.

In the winter of 1878-79, Professor Walker gave a course of lectures, in the Lowell Institute, at Boston, on "Money in its Relations to Trade and Industry."

Referring to this course, Walker writes, February 2, 1879, to Holt, who must have written a scolding letter:

Now—It is being borne in on my mind by the course of events and the train of remarks made to me, that I ought to publish my lectures on Money at Boston, for the public good, putting the volume at a low price and trying to get a large circulation for it.

I have already inflicted two dull and large books on you, and I have no claim to any consideration on your part, as to these lectures. What I have thought was that I could get some Boston house to bring them right out, on

the conclusion of the course and put them into the market by April. They are in a form to do a certain amount of good, *if read*, and, perhaps, in a form *to be* read.

My political economy is, of course, dormant while I am working over my lectures, but I shall give myself to it sincerely, after I get through at Boston—for soon the night (the Census) cometh, when no man can work.

His New York publisher evidently “bristled” at the prospect of having the Lowell Lectures brought out in Boston, for, on February 10th, Walker writes again:

There was no treason in my remark. I thought you might be sick of publishing books for such a fellow, and I would give you a show, by imposing on some poor devil at Boston.

I can't tell till I have delivered my last lecture, Friday night, whether I shall want to publish or not. Then I can look back on the course, and get the proportions of it.

I am profoundly sceptical on your theory that a book sells no better, in these times, for being put down to a low figure. At least, I should like to try it with this one.

I have been shockingly busy, what with my work at N. H. and at B. but this week ends all.

The reference to the Census in the letter of February is to the Tenth, that for 1880, to the directorship of which he had been appointed by President Hayes.

CHAPTER XI

THE CENSUS OF 1880

As already noted, General Walker had been deeply chagrined at the shortcomings of the Census of 1870 due to the faulty law of 1850 under which, because of the picayune attitude of the Congress in refusing to authorize a new procedure, he had been obliged to work. He had shown a deep interest, therefore, first, in the proposal to take a special Census in 1875, as an index of the growth of the United States in exactly a century, and, secondly, in the efforts which enlightened officials in Washington were making to bring about adequate legislation for the Census of 1880. As to the first, George F. Hoar, then a member of the House, writes on January 15, 1874:

I have been appointed chairman of a sub-committee of the Com. on the Centennial to consider the question of a new census of the United States in 1875. I am directed to ask you to be good enough to make such suggestions to the committee as your experience may dictate. We should like especially to learn your views on the following questions:

1st Should there be a census in 1875?

2d What changes in the law are desirable either as regards the method of taking it, or the subjects of inquiry?

3d What will it probably cost?

This is endorsed by Walker: "Ans^d January 16 (telegraph) and at length Jan. 30, 1874." Whatever may have been that answer, the plan was not brought to fruition.

As to the second question, Carl Schurz, then Secretary of the Interior in Hayes' Cabinet, replies to a letter from Walker:

You may be right in saying that if the matter of the Census be urged upon the attention of Congress at the beginning of the next session, it may be looked upon as premature. But it strikes me that if we wait until the short session of 78-79, there will scarcely be time enough to secure to it that careful and mature consideration which it deserves. . . .

At any rate, I should be glad to have as soon as may be convenient to you, your ideas as to the things to be done, so that we may mature a plan among ourselves and secure to it sufficient strength among members of Congress before it goes in. This, I think, ought to be done during the coming winter.

This idea evidently met with Walker's approval, for on May 20, 1878, Garfield, still a member of the House, as at the time of the Census of 1870, wrote as follows:

Yours of the 11th inst. enclosing draft of a bill for taking the next Census came duly to hand. I have made a few minor changes and added a section providing that the same act shall apply to future censuses in case no other legislation is had. I will introduce it into the House this morning and have it referred to the Census Committee.

The following letter of February 12, 1879, from Secretary Schurz, indicates that the proposition to serve again as Director of the Census had been made early in 1879:

I have never thought of anybody but you in connection with the census, and I am now more than ever convinced that your withdrawal from that work would be a most unfortunate thing. I am glad to know that you are ready to undertake it.

Walker disliked Washington in summer. He writes to one of his boys:

Washington,
June 16, 1879.

It is very hot here, and I expect to suffer a good deal this summer while I have to be in Washington. It almost makes me wish there were no Census—or that I had nothing to do with it, but I shall run off to Fortress Monroe occasionally & cool off. Perhaps I will go into the Valley of Virginia, and see some of the old battle-fields.

Yesterday I saw Mr. H——, who was with us in Paris, and tonight I am going to dine with him at the Arlington. His wife who stayed in London when he came away, has a fine, big boy baby, and Mr. H—— rather likes it. When he has five boys he will like it ever so much better.

I hope Yale is going to beat Harvard this afternoon.

Tell your Aunt Libby that petroleum will be good for her rheumatism—rub it in well and then touch it off with a match.*

Later in the summer he wrote to his daughter:

I hope, indeed I know, you are having a good time at Greenfield. Little girls whose tastes are not forward like that sort of thing. Aunt Libby, I suppose, is pretty good to you, for her, and you really think that going out into the woods, picking berries, rowing on the river & having supper under the trees is better than going to S—— School!! Well, as you grow older you'll know better, & then you'll not ask to go to Greenfield and stay with Aunt Libby but to come to Washington and spend your summers, where you can be just as warm as you want to be, and all that.

I went down to Fortress Monroe on Friday, by the evening boat, and came back by the Sunday night boat. I thought a great deal of Ambrose "as we sailed, as we

* See footnote, concerning the alleged elderly aunts, on p. 180.

sailed" (with an old engine & a set of boilers that were once six months at the bottom of the river), and of the pretty trip his mother & I made with him six years ago—no seven, when he was three years old, and had his birthday on the boat. We did not go to Norfolk this time, but stopped at Old Point Comfort, which Ambrose can find on the map, if there should be a geography anywhere in Greenfield. I send him a newspaper.

I hope you will have a glorious time, and that all you little ones will give your aunts as little trouble as possible, for they are getting old you know and it is hard for them to be worried.

The Tenth was, as the New York *Sun* called it, the "Jumbo of Censuses." In its final shape it embraced twenty-two volumes besides the index. It comprehended not only the statistics of population and other matters usually dealt with in such a national accounting, but took up such diverse problems as "Water Power Employed in Manufacturing," "Wages, Trade Unions and Strikes," "Mining Laws," and "Social Statistics of Cities." As General Walker himself wrote, more than ten years later: *

. . . The labor of organizing and energizing a census is such that no man can conceive who has not himself undertaken it, or, at least, stood close by and watched the machine in full operation. Aside from the question of the superintendent's intellectual ability to comprehend his work in all parts, and to make provision for every foreseen occasion and for every sudden exigency of the enumeration, the strain upon the nerves and the vital force of whomsoever is in charge of the census is something appalling. My successor in the Tenth Census, Col. Charles W. Seaton, was literally killed by the work, and three successive chief clerks of that census died in office.

* *The Forum*, 1891, pp. 258-67.

The present Superintendent of the Eleventh Census, Mr. Porter, was driven away to Europe by his physician last summer, while the work was at its height, to save his life. Taking a Census of the United States under the present system, and upon the existing scale, is like fighting a battle every day of the week and every week for several months.

Because of its size and cost; because of its comprehensiveness, which was not yet inclusive enough to satisfy everybody; because of delays, avoidable and unavoidable; and because of political bias which makes the "outs" in office seize with avidity upon all alleged shortcomings of the "ins"; the Census of 1880 was as bitterly attacked as it was extravagantly praised. Professor Alfred Marshall, the eminent English economist, says of its volumes, in a letter dated September 25, 1885: "They are indeed a wonderful work; and must fill all European statisticians with envy."

Its most intelligent champion was, of course, Walker himself, and, as he was responsible only for the general plan and for the setting up of the machinery, he could speak dispassionately of the achievements of his successors in the actual carrying out of the work that he began. It is of interest, therefore, to quote from a paper of his contributed to the January, 1888, issue of the *Quarterly Journal of Economics*:

. . . The successive deficiency appropriations for that work, the delays in the publication of some of the later volumes, together with the newspaper attacks upon the census, which became epidemical in 1882 and 1883, have created, in the minds of most of those who have any impression at all on the subject, the belief that the Tenth Census was extravagantly expensive. Yet no opinion could be more unfounded. The fact is that, considering the new ground covered, the Tenth Census was a marvel of cheapness. Even if we leave out all consideration of

the great extent and variety of statistical work then for the first time undertaken, and treat all this as having cost absolutely nothing, we shall still find that the cost of the Tenth Census, per capita of inhabitants, exceeded that of the Ninth Census by far less than the ratio in which the cost of the Ninth Census exceeded that of the Eighth. Yet no one ever took exception to the expenditures of 1870-72, and that work was finished to public satisfaction.

The body of this very illuminating article is a plea for a permanent census bureau, with trained experts, to take the place of the temporary organization erected every ten years hurriedly, and under political pressure, and manned, necessarily, with persons who have had little or no experience in the difficult field of statistical inquiry. Paying tribute to the enlightened Census Act of 1879 which "effected a vast, an unspeakable improvement upon preceding census legislation," since for

the first time, it gave the central office at Washington adequate authority over the arrangements for taking the census, and over the enumeration while in progress. For the first time, it provided the proper local control and inspection of the delicate and difficult work of enumeration, through the appointment of one hundred and fifty district supervisors, chosen with reference to this duty, charged with this alone, and directly responsible to the central office, . . . and in place of the large and unwieldy enumeration districts, previously existing, with the greater portion of which the enumerators were, by the necessity of the case, unfamiliar, . . . limited the districts to a size which practically secured the result that each enumerator should be acquainted, in advance, with the ground he was to traverse. . . .

General Walker concludes:

The long forward step taken in the Act of 1879 can never be retraced, nor does the present writer believe

that the loose talk heard in many quarters about carrying the census back to its original Constitutional function, expresses the real purpose of any considerable number of intelligent citizens. What the country wants is more information, not less.

One of the varied difficulties which a director of the Census meets is indicated in a private communication, dated August 4, 1880, from President Hayes:

The enclosed slip if its statement is correct is a surprise. Possibly it requires careful scrutiny.

The enclosure reads:

PARTIAL CENSUS RETURNS from Virginia show an unlooked for increase in population. Returns from 12 counties in the 1st congressional district and 1 county in the 4th district show a population of 127,591, against 79,582 in 1870, a gain of 48,009 since 1870, whilst the 2d congressional district shows a population of 175,160, against 138,614 in 1870, a gain of 36,546. Norfolk county shows a gain of nearly 9,000, Accomac 4,000, Southampton 6,000, Nansemond 4,000, and so on.

Carroll D. Wright, on information given him by Professor Henry Gannett, geographer of the Tenth and Eleventh Censuses, comments on the suspicion as follows:

Upon the . . . publication of the figures of population, it was discovered that, as compared with the census of 1870, there had apparently been great gains in population throughout the Southern States, especially in certain parts of South Carolina, Mississippi, and Arkansas. These gains were in many instances so enormous as to be beyond belief, and immediately throughout the North suspicion arose that wholesale frauds had been committed by the enumerators in the South. . . . Great pressure was brought to bear upon General Walker for the immediate arrest of the supervisors and enumerators concerned in the work. . . . Instead of following the unwise advice

urged upon him, he promptly but quietly set on foot investigations, which resulted in proving that the enumeration of 1880 in the Southern States was practically correct; but this result discredited that of the previous census in the same localities, and showed that the omissions from the census of 1870 in many sections were of a wholesale character. Having possessed himself of this evidence he unhesitatingly published it, although he discredited his own work in 1870. The result was that General Walker stood higher than ever before, for the American people appreciated that sort of bravery, as they always do. What might have been the result had he been weak enough to yield to the solicitations of political partisans can scarcely be imagined.

Ten years afterward, the New York *Evening Post*, commending General Walker for declining to enter into a public controversy which had arisen over the Eleventh Census, says:

It must be remembered that President Walker has had much experience with the temper of the people. He recalled the contests between St. Joseph and Kansas City, between Chicago and St. Louis, and between Minneapolis and St. Paul, to illustrate how perfectly crazy entire communities will get upon the subject of their relative size, and how they will cry out against the real figures. He has known of instances where the contents of hotel registers for six months preceding the census laws have been copied in order to increase the list of residents. He has known of cases where men have sat up nights with directories, coining names to put into the census.

At about the same time, namely, on December 2, 1890, Theodore Roosevelt, at that time Civil Service Commissioner, wrote at the end of a letter to Walker: "Oh, how we sigh for *your* days in the Census Office."

During his necessary absence in Washington, as Director of the Census, where, as Walker writes to

President Gilman in the spring of 1880, "I am bound to a fast revolving wheel," his classes at the Sheffield Scientific School were in the hands of Professor James F. Colby. The following letters from Walker are to him. The first is dated January 21, 1880:

I am distressed that I have so long failed to acknowledge your kind letter giving me information (most welcome) as to the progress of your work with the classes in Hist. and Pol. Economy. I have no doubt the young gentlemen are doing better than if I were with them; and I trust the tour of duty will be, on your part, not disagreeable.

Your diagram exhibiting the analysis of the Wages Class is calculated to help the student very much.

Mrs. Walker speaks of having had the pleasure of seeing you, and my children write me of the present you were so kind as to send them Christmas day. My wife and Lucy are now with me for a few weeks and we are greatly enjoying ourselves together.

The second is dated nearly a year later:

I make very little progress upon the text-book, but hope soon to be left somewhat freer of my Office duties, and to be able to take an evening, now and then, to work out some chapter which I have long since completed in substance but not in form.

Mrs. Walker informed me of your latest experiment in teaching political economy to the ladies of New Haven, and I desire to congratulate you on your success, which must be due not less to the attractiveness of the teacher than of the subject.

The third letter from Walker to Professor Colby has the date of July 17, 1881:

I am very much obliged to you for so carefully arranging for the safety and integrity of my library in

N. Sheff^d Hall, and I do not doubt that on my return I shall find everything the better for your use of it. Please feel entirely at liberty to take or retain anything that seems of special service to you to use for the present. I am not likely to be fortunate enough to make any use of my books for long months to come. The good news from the White House fills us all with joy. How today differs from today two weeks ago!

The reference in the last lines is, of course, to the illusive rallying of President Garfield after what proved to be the fatal shooting of July 2, 1881.

Garfield and Walker had been close friends ever since the distinguished service of both in the Civil War, and this military friendship had been cemented by the fact that the legislation for the Ninth and the Tenth Censuses had been carried forward largely under the leadership of Congressman Garfield, who had worked, also, for that important matter so dear to Walker, the creation of a permanent census bureau.

There was general hope, therefore, among the friends of good government that President Garfield would invite Walker to his Cabinet. This is voiced by the *Pittsburgh Dispatch* of December 16, 1880:

General Walker is a born administrator and executive, and that is what is needed in the Interior Department perhaps more than in any other Cabinet position. He has the further advantage of familiarity with two of the most important bureaus of this department—the Indian office, of which he was commissioner in the early part of Grant's administration, and the census, of which he is acting the second time as commissioner. That he is honest and would be the foe of rings everybody knows, and it is not less important that the Secretary of the Interior should be honest than able. In fact, Gen. Walker is every way excellently equipped for the place, and if Secretary Schurz were asked to name his successor, he

would probably designate the superintendent of the census without any delay.

Great, therefore, was the anxiety of the spoilsmen as shown in the following extract from a characteristic letter sent by the notorious Dorsey to President-elect Garfield:

. . . I have heard that General Walker was likely to be appointed Secretary of the Interior. I give all these stories for what they are worth. General Walker is not a Republican. He does not even know himself to what party he belongs, and never did. I went to him once to see about the appointment of two supervisors for Arkansas, and urged him to appoint some of the best Republicans in the State. I presented him the names of five persons of all nationalities, all of whom had been in the Federal army—two colonels and three lieutenant colonels—two of whom had been governors of the State, and all five were drawing pensions for wounds received in battle. His reply was that he had held several public offices, but he had never allowed the question of politics to have the least influence in making appointments to subordinate positions, and he never should. So I left him, and this non-partisan characteristic of his mind appointed two of the meanest and most disreputable Democrats in the State, one of whom had been indicted on twelve counts for kukluxing Republicans. We were only entitled to two supervisors. I prefer straight-out Democrats to non-partisans. . . . I am not especially anxious to see any of the Walker breed in your administration, in high or low places. We can get along without them, and perhaps in a few generations the political millennium will come, and then they can be taken care of.

In a letter to the Boston *Transcript*, its Washington correspondent says, February 27, 1881:

Garfield would like personally to retain Sherman as his secretary of the treasury, to make Gen. Walker secretary of the interior, to appoint Postmaster James to the head of the post-office, to number Wayne MacVeagh,

Horace Davis of California and some clean and able southern man among his cabinet advisors; his personal inclinations lead him to select men of this character. But he does not dare to please himself; he fears to offend the party bosses, to incur their ill-will and opposition.

The following letter from Senator Dawes, of Massachusetts, dated March 27, 1881, looks like a "feeler" towards Walker's return to the Indian Bureau:

The President will ask you—at least he said he would—to lead him to a good Commissioner of Indian Affairs. Pray take hold of it in earnest, and help him to one, who is acquainted with Indian character, Indian business, has sagacity and knows an honest man from a thief—and one who is himself civilized.—I do not know any such man *at liberty*. You must, and I hope you will draft him.

Meanwhile, the rare combination of high scholarship and brilliant administrative success had again brought General Walker into the horizon of the college world, where boards of trustees are always on the watch for presidential "prospects." On December 20, 1880, Mr. Griffin, so long associated with the *Springfield Republican*, had written:

I was talking with a prominent trustee of Williams College the other day, and suggested to him that the man for the presidency of that Institution was Gen. Frank Walker. Today I have a letter from him saying: "Have you any idea Prof. Walker would accept it? I have the highest opinion of his fitness for it in all respects."

What shall I say? It would be a field that is worth the tilling, I am sure.

What the reply was does not appear; but more than six months earlier, Professor Walker had been approached regarding the presidency of the Massachusetts Institute of Technology, the burdens of which

were becoming too heavy for President William Barton Rogers, at that time over seventy-five years of age and in precarious health.

Dr. Rogers wrote, on June 12, 1880, from his summer home at Newport:

Since my conversation with you in Washington, some weeks ago, I have conferred with members of the Corporation of the Institute of Technology on the subject of choosing a President for the Institute, and I have been authorized, in concert with the "Committee on the School," to offer the Presidency to the person whom we may consider to be the best fitted by scholarly training, zeal and administrative ability to carry forward the educational plans of the Institute; at a salary of five thousand dollars a year.

I now write, with the authority of the Committee on the School, to offer the position to you, and I need not say my dear Prof^r how earnestly I desire that you will accept it.

Should it be our good fortune to have you with us I can assure you and Mrs. Walker of a hearty welcome in Boston.

In case of your favorable reply be good enough to say at what time you would probably be free to enter upon the duties of the Office.

Evidently this offer was taken under consideration, though with no definite promise, for on January 29, 1881, President Rogers wrote again:

As the Corporation of the Institute at their stated meeting to be held on the 9th of next month, will naturally look for some direct information as to your purpose in regard to the Presidency of the Institute, I wish if possible to have some statement from you which I can communicate to them at that time.

I called on Mr. Hyatt, soon after he had seen you in Washington, and learned from him verbally what you had requested him to say to me on the subject, but I have not thought it proper to mention the matter to any one but Mr. Cummings.



FRANCIS AMASA WALKER
Assistant Adjutant General, U. S. V.

If you will write to me to the same purport, or in such form as you prefer, requesting a postponement of your decision until later, say in April, I think it would be satisfactory, and I believe that the Corporation would appreciate it.

On February 11, President Rogers wrote again :

Your letter of the 5th last was read to the Corporation of the Institute at their meeting on the 9th inst., and they voted, without discussion, to accede to your request for a delay of your decision regarding the Presidency of the Institute, until April.

The Corporation will hold a stated meeting on the 13th of April, by which time I trust that I shall be authorized to announce your decision, which I earnestly hope will be a favorable one.

The considerations mentioned in your private letter to me are such as I had already in a measure surmised, and I entirely sympathize with your desire to be guided by them.

Evidently some informal understanding was reached at that April meeting, for, on May 3, Professor Brush, of the Governing Board of Sheffield, sent the following :

I very much regret to learn from yours of the 30th ultimo, that we are likely to lose your valuable services. Our friend, Professor Rogers, consulted me on the subject last summer, and although I was anxious then, I had calmed down in the hope that the matter had been dismissed, and that we should have you with us again this fall. I looked forward to your return with genuine pleasure, and if there is anything we can do even now, to ensure it, I will gladly work with a will to secure this end.

But I am aware that "blood is thicker than water," and I can well understand how strongly you are attracted by the surroundings offered you at Boston.

If you must go, I wish you every success. It will always be a satisfaction to me to recall the pleasant relations you held with us here, and I assure you we shall hold in

grateful remembrance your efficient co-operation in helping to broaden our courses and to maintain a high standard of scholarship in this institution.

On May 25, 1881, formal election by the Institute Corporation took place, as stated in the following from Lewis William Tappan, Jr., Secretary *pro tem.*:

I have the honor to inform you that the Corporation of the Massachusetts Institute of Technology has this day elected you President of the Massachusetts Institute of Technology with a salary of \$5000 per annum. Your term of office to begin October 1, 1881.

It is recorded in the minutes of the Corporation that the polls were kept open for seven days and that the vote for him was unanimous.

Professor Walker's resignation from the Sheffield Scientific School, of course, followed and was acknowledged by Professor Brush on June 21:

I communicated the contents of your letter of June 12th. to the Governing Board last evening. We all thank you most heartily for your kind and generous expressions of regard for our institution, and for the men who have been your associates here. We are profoundly sorry to have you sever your connection with us, and we assure you that the friendly feelings you express are warmly reciprocated by every member of the Board.

We wish you success and happiness in the new field to which you have been called, and we shall always hold in lively and grateful remembrance the pleasant relations which we so enjoyed with you.

November 1, 1881, President Arthur having well in hand the duties of the Presidency so tragically placed in his keeping in September, General Walker resigned from the directorship of the Tenth Census, retaining, however, for several years supervisory relations, with-

out compensation, very similar to those which had been borne by him in connection with the Census of 1870.

It was during this supervisory period that he received the following doggerel from his old friend, John Hay, with whom he and Clarence King had "kept house" during one of the summers devoted to the Census of 1880:

Sienna, Italy, Feb. 20, 83

In the old distant days, in the days before Butler and Arthur—

(Hayes was our President then and Frank Walker numbered the people)

Walker to Hay made a promise and sealed it in bumpers of Seltzer,

Seltzer or Apollinaris, or other innocuous swizzle,

That when the Census was finished and Israel properly numbered

Hay the aforesaid should have said Census in its entirety. Smithereens now is the world that then opened onward so gaily.

Guiteau has come and gone and Arthur remains fat and happy.

Walker has waltzed away to æsthetic bean-pastures of Boston.

Hay has gone off to Europe with something gone wrong in his inwards,

But he still trusts in the promise which Walker incautiously made him;

And, in the Grand Hotel, on the wind-swept heights of Sienna

Fearing that if he speaks not he will lose his share of the fodder,

Hay, the dyspeptic, makes bold to remind the eupeptic Walker—

Walker renowned in war, in peace and the hearts of reformers—

That in the City of Cleveland beside the rash Cuyahoga
There is a library shelf awaiting the books of the census

Empty and airy and bare as the head of a member of
Congress.

If from good Walker the power is gone there remains
the brave Seaton,

Haply a word from the one will soften the heart of the
other.

So with much greeting of love from the Hays to both
of the Walkers

Breakfast bells ring and the scribe concludes his tuneful
petition.

CHAPTER XII

EARLIER YEARS AT TECHNOLOGY

THE Massachusetts Institute of Technology had been established in 1861 by a group of men of affairs in Boston, under the inspiring leadership of William Barton Rogers. Projected for a number of years by persons prominent in the rapidly growing industries of New England, who felt the urgent need for men trained in science and its applications, the enterprise did not assume practicable form until it was taken up by Professor Rogers, founder in the completest sense of this great school.

William Barton, second of the famous four sons of Patrick Kerr Rogers, was born in 1804, in Philadelphia, where his father, an Irishman from Londonderry who had been obliged, for political reasons, to flee thence in 1798, was a struggling physician, married to a Scotch girl, Hannah Blythe. Conditions were hard and privations many for this brilliant household, and it was not until William had reached the age of fifteen that his father's unusual capacity was at last recognized by appointment to the chair of Natural Philosophy and Chemistry in the College of William and Mary, at Williamsburg, Virginia, the oldest institution of higher learning, excepting Harvard, in the United States.

Educated at that ancient college, trained in scientific thought and method by his father, and concerned, through coöperative work with his brothers, James, Henry and Robert, in practically every branch of scientific inquiry, William Barton Rogers achieved

fame very early in the field of what was then called "Natural Philosophy." At the age of twenty-four he succeeded, as professor, his father, who had died of malaria. Seven years later William Rogers was called to a similar chair at the University of Virginia, and remained there for eighteen years, meanwhile completing a monumental survey of the geology of Virginia and making such other contributions in geology, physics and chemistry—to name only his major interests—as to win him international fame.

Marrying, in 1849, Miss Emma Savage of Boston, daughter of the eminent genealogist, James Savage, Professor Rogers, in 1853, came North with her from the University of Virginia, because she was needed by her father. Soon thereafter, by a process of natural selection, he became the recognized leader of the still indefinite project for a higher technical institution in Boston.

Professor Rogers had given the teaching of applied science careful study since 1837. Together with his brother Henry he had put into definite form, in 1846, a plan for a Polytechnic Institution. He was astonishingly familiar, from actual study and investigation, with substantially every then recognized aspect of science. And he possessed a brain of high constructive power as well as of keen foresight. He was able, therefore, to conceive his projected college substantially as it exists to-day, and to make his vision live, not only in the pages of the "Objects and Plan of an Institute of Technology," which he issued in 1860, but in the minds of industrial leaders, from whom the funds must come, and of legislators, from whom authority for the undertaking, by State charter, must be derived. In this work of persuasion Professor Rogers was greatly aided, not only by his own intense enthusiasm, but by

a grace of diction and a force of presentation seldom given to those of English speech unless they happen to have, as he had, Irish blood.

The "School of Industrial Science of the Massachusetts Institute of Technology" (when writing the full title one wishes that Professor Rogers had consented, as he was so strongly urged, to have it called merely by his name) was chartered in April, 1861, in the turmoil of impending war. It was saved from forfeiture of its charter, almost as through a miracle, at the eleventh hour, by a large money gift from Dr. William J. Walker, and it was opened in April, 1865, in a few rooms at 16 Summer Street, moving thence, in 1868, to what is at present known as the Rogers Building, on Boylston Street.

Although the School now overshadows the others, the "Plan" contemplated also a Society of Arts for the furthering of new discoveries and inventions, and a Museum of Arts for the objective study of machines and their products. The Society, now superseded by other agencies, flourished as long as it served a useful purpose; but the Museum is yet to be created.

With a notable group of teachers fired with their President's own zeal for the laboratory method of instruction—now practically universal but, in 1865, a daring innovation and one for which the world owes its greatest debt to Rogers—the new institution made excellent progress until it began to feel the effects of the disastrous financial panic of 1873. Its numbers, which had steadily grown, up to the year 1875, began alarmingly to fall off until, in 1878, the school, despite the utmost sacrifices and economies on the part of the staff, seemed on the verge of dissolution. Professor Cross states *

* "Early History of the Alumni Association."

that three full professorships were abolished; all the professors' salaries were reduced, and even a proposition, understood to have come from members of the Corporation, towards a closing of the school was in circulation orally.

The situation had been further complicated by two successive disasters: President Rogers, worn out by anxieties and labors, had completely broken down in health, in 1870, and had been obliged to transfer his executive responsibilities to one of his earliest Institute colleagues, Dr. John D. Runkle; and this successor, after eight years of effort, the last three of them spent in an almost desperate struggle to secure funds and students, had, in turn, found the burden too heavy and had felt compelled to resign. A petition to the Legislature for State aid, presented in the session of 1878, had been decisively refused.

Most providentially at this crisis, Dr. Rogers, through the devoted care of his wife, had not only been brought back from the brink of death, but had so far recovered his natural vigor as to be able to resume the presidency, despite his seventy-four years. He imposed, however, three conditions: that he be permitted to resign again as soon as a competent successor could be found; that he be relieved of all executive details; and that the friends of the Institute raise \$100,000 to pay its most pressing obligations.

The second condition was happily met through the appointment of Professor Ordway as Chairman of the Faculty; after an uphill struggle of two years, the desperately needed money was raised, the members of the Faculty meanwhile, on their own initiative, accepting, as already noted, a substantial reduction in their meager salaries, and the Treasurer, John Cummings, giving his personal notes for the debts of the Institute.

To find just the right man for President was, however, a matter of the utmost difficulty. No graduate of the Institute was yet old enough to be available; most leaders in science were wanting in executive experience; while few men of large affairs possessed educational capacity, and fewer still sufficient foresight to discern what a power the Institute of Technology was destined to become.

Fortunately, Professor Walker had long been in that special public view which had caused his name to be seriously considered for various college presidencies; still more fortunately, Dr. Runkle and Mr. Cummings had seen him at work in the Philadelphia Exposition; and, most fortunately of all, President Rogers, after consulting Professor Brush, at Yale, and after renewing acquaintance with Walker by making a special visit to him at Washington, was deeply impressed by the unusual qualifications of the director of the Census for the Technology presidency.

While not an engineer or a "natural scientist,"—to use an outworn term—Walker was a pioneer in the sciences of economics and statistics, and a master of scientific method. Trained at a period and in a college where Latin and Greek were dominant, he always retained enthusiasm for them (he writes, for example, to a friend: "The Classics were always a hobby of mine"); yet he had grown to be an ardent advocate of the newer types of education. A soldier and a lover of athletics, he was experienced with young men and possessed a peculiar faculty for making himself, unconsciously, the object of their emulation. His wide range of activities had given him an unusual acquaintance with a variety of important persons, and his years in Washington had made him familiar with the ways of legislators. Every one of these

qualifications was of the utmost importance to the Institute of Technology just at that time. It is easy to understand, therefore, the anxiety of President Rogers to transfer his responsibilities to the shoulders of this comparatively young man, so rarely competent to assume them and so well fitted to carry forward successfully the life-work of the Institute's great Founder. The following letters from President Rogers to his successor are of historic interest. The first, dated July 8, 1881, is written from Newport:

At the close of the session of the Institute, two of our professors, Ware of Architecture, and Henck of Civil Engineering, resigned their chairs, the former, I suppose, in consideration of the greatly larger salary at Columbia College, and the latter from a wish to retire from professorial cares.

They have both been with us since the opening of the School, and have proved zealous and good instructors.

As yet we have not secured a successor to either of them, and I write to ask your aid in this enquiry, thinking that from among or through your numerous scientific friends you might be able to suggest some one or more persons of reputation in these departments who might be found to have the proper qualifications and be at the same time attainable and personally acceptable to you.

The salary, as in the case of all our full pay professors, is \$2500 a year with an occasional small addition from the fund devoted by Mr. Lowell to his free courses of Instruction in our Institute. This is stinted pay, but I trust that the finances of the Institute will, ere long, enable the government of the Institute to increase it.

I see that you were present at the closing exercises at Yale, which I learn from Professor Otis were of unusual interest.

Our simpler proceedings were regarded as quite a success, the 28 graduates, including 2 young women, acquitting themselves extremely well.

Judging from the number of applicants for admission

at our June entrance examinations, we may count on a class even larger than that of last year.

The second, also from Newport, bears date of September 20, and refers, of course, to the changed conditions in Washington brought about by the death of President Garfield:

I most truly sympathize with you in the embarrassment and anxiety expressed in your letter, and I shall do what I can to relieve so much of it as relates to the Institute, until you are ready to assume the charge of our affairs.

Of course I have until lately expected to be relieved of Institute cares at the opening of the session. But now that the anxious and perplexing work of filling the vacant chairs has been accomplished in a way to me very satisfactory, I trust that there will be no further *extraordinary* duty to be attended to.

The entrance examinations will be held to-day and to-morrow and the School will open on next Monday, the 26th. By that time we shall know the extent of the regular first year class and be able to judge of the probable total of all the classes for the session, and on these points I shall see that you are informed, unless you may choose to be present.

I sincerely hope that there is good foundation for the report that the New President means to retain the Old Cabinet. Please, when you have time, let me know how your work is likely to be affected by Current events, and do not be anxious about Institute matters at present.

On September 30, Walker had written to Holt:

My plans are all knocked into *pi* by the President's death, and I don't know where I may be any week from now to January. I hoped to be quietly on duty at Boston by this time, and had a full understanding with Gen'l. Garfield on the subject; but can, of course, assume nothing respecting the wishes and purposes of the new President, at present.

On November 5, 1881, Walker was formally introduced by Dr. Rogers to the Faculty. Two days later the elder president wrote to the younger :

The Corporation of the Institute will meet on Thursday the 10th inst. at 3:30 P.M., in the Library of the Institute, when, I trust, you will give me the pleasure of introducing them personally to you.

On that date, General Walker took the chair as president of the Institute. At this meeting William Barton Rogers was made Professor Emeritus of Physics and Geology.

The still unfinished Census required President Walker's presence in Washington about every third week; yet he was able regularly to attend Faculty meetings throughout the college year, 1881-2, and he was active in solving every problem of importance at the Institute, as it arose. Before his arrival it had been agreed that he should strengthen the school on the side of economics and history, and he gladly undertook, in addition to his administrative duties, a course of lectures to the second-year class on the principles of political economy. Those lectures were very popular with the students. Although, as already noted, he almost always began with a good deal of hesitation, in a few minutes he would warm to his topic and would make a brilliant exposition livened with apt illustration and pointed with references to current affairs.

Carrying forward the plan of broadening the Institute, General Walker established, soon after his acceptance of the presidency, a General Course, thereafter known as Course IX, which, while demanding solid work in science, placed its main emphasis upon studies in the fields of economics, history, public law,

English and modern languages. To this course Walker, throughout his administration, gave much personal supervision, and he chose notable men to carry it on. While the number of graduates was never large, it met a genuine need, did much to increase the Institute's prestige, and had a profound influence, not only at the Institute, but in the many other schools of technology which were then arising or have since come into being. It demonstrated the importance and value of that side of technical training upon which President Walker never ceased to insist: the inculcating of breadth of view, tolerance and genuine wisdom through leading the student into fruitful paths in the wide fields of literature, history and economics. Unfortunately, it was given up about nineteen hundred, but was in a measure revived through the course in Engineering Administration and is now restored.

Two other things mainly occupied the new president during his first year. He saw the immediate necessity of placing the administrative machinery upon a more businesslike basis, and he sought to relieve as quickly as possible the very serious overcrowding of what is now called the Rogers Building, by erecting a second structure.

Under the Charter, the Institute is governed by fifty trustees, originally elected for life and self-perpetuating. Made up in the beginning from the group which had long been seeking to establish an institution of applied science, or of devoted personal friends of Professor Rogers, this seemingly unwieldy body functioned, for the first dozen years of the Institute's existence, with a good deal of success. As time went on, however, some of the original members died, the interest of others waned, while a few of those added did not have the same feeling as their predecessors

towards the enterprise. When, therefore, General Walker took charge, the institution was suffering from absenteeism or languid interest on the part of many of its governing body, and administrative problems were dealt with under serious disadvantage.

Without making any change in the original constitution of the Institute Corporation—for it was not until 1904 that the “term-membership” coöperation of the alumni of the Institute was practicable—Walker set up an Executive Committee made up of the President and Treasurer, *ex-officiis*, and of five other members, one being chosen annually by the Corporation from among its members, to serve for five years. This executive committee, meeting at frequent intervals, is given power to deal with all minor problems and has authority even to make appointments to the teaching staff, subject to confirmation by the Corporation. While such a step may seem simple, the bringing about of this modification was far from easy. Yet, in the opinion of those who were close to the Institute’s affairs at that time, this apparently slight change was a powerful factor in the preservation of the school’s integrity and its phenomenal gains under President Walker.

Obviously necessary as was this device to bring about efficiency in the conduct of Institute affairs, it has had the ill-effect of keeping those of the Corporation not on the executive committee somewhat remote from the immediate problems of the school. This disadvantage has been only in part overcome by asking every member to serve on some visiting committee, through which he is supposed to follow closely the work of at least one department.

The Institute suffered, in the early eighties, under an even more serious disability. The single build-

ing in which the school was then housed was painfully overcrowded. Despite falling numbers, the work, especially on the side of laboratory teaching, had been so developed that faculty and students had been greatly handicapped for a number of years through lack of room. They had experienced only slight relief through the erection, on the "sand lot" which constituted the remainder of the Institute's original grant, of a one-storied brick building. In this were housed the "School of Mechanic Arts," created by President Runkle to demonstrate to a sceptical public the advantages of the Russian system of manual training—and to serve, also, as a feeder for the School of Industrial Science,—and the "Women's Laboratory." To that subsidiary had been admitted for some years a limited number of women anxious to prove, under the competent leadership of Mrs. Ellen H. Richards, '73, the first woman graduate of the Institute, their fitness as workers in the expanding field of chemistry.

Under the original grant from the Commonwealth, the Institute possessed the right, subject to certain restrictions, to erect buildings covering two-ninths of the city square bounded by Boylston, Berkeley, Newbury and Clarendon Streets, which it occupied jointly with the Boston Society of Natural History. It had full control, moreover, over what the Yankees call a "heater-piece,"—that is, a triangular lot of land,—in front of that on which was being erected Trinity Church. With commendable canniness, President Walker declared it to be his intention to work for the immediate erection of a new building for the Institute on the unrestricted area. This announcement, naturally disturbing to those interested in Trinity Church, led to an advantageous sale of the "heater-piece," and thus to the securing of a financial nucleus

for a building on the Boylston Street square. Except for the comparatively small sum so obtained, the Institute not only had nothing with which to pay for such an addition, but was only just emerging, thanks to the \$100,000 pledged in 1878 to secure the return of President Rogers, from a really desperate condition, verging on insolvency.

It was characteristic of President Walker to begin his campaign by having plans for the new building drawn and confidently announcing that it was to be erected. He felt so keenly the need of more room, he was so convinced of the indispensability of the Institute to New England and, indeed, to the whole Country, he had such faith in the men among whom he and his father had grown up, that he took the wise course of "putting the cart before the horse" by starting the building, and then seeking funds with which to pay for it. In the world of business, such procedure, as a rule, would be disastrous; but in the furthering of a public and essential service, that method is justifiable. It proved its wisdom, in the case of the Institute, not only then, but on many subsequent occasions. Whenever the authorities have held back because of excess of caution, the institution has suffered, at least temporarily; whenever those leaders, convinced that such a step would further the effectiveness and usefulness of the Institute, have gone boldly ahead, although for the moment its resources seemed more than doubtful, they have met with success. One of the chief services rendered by President Walker was in converting his colleagues to this optimistic, bold, and thoroughly sound policy.

It was a policy, however, that involved him in labors most distasteful to him and seriously taxing his nervous strength. Most men dislike to beg, even for

the worthiest cause. Walker was peculiarly sensitive in such matters and shrank, with almost abnormal fear, from what would now be called the "selling" of the Institute's educational value to men financially able to come to its rescue. He never could rid himself of the idea that a favorable presentation of the work of Technology implied the puffing of himself; and he was singularly averse to crying his own wares. Nevertheless, with the erection of the "New" building,—as it was for some years called,—as his first major task, he manfully undertook the raising of what, at that time and under the circumstances, was a huge sum, in order to meet this absolutely fundamental need. Without expansion, the Institute could not continue adequately its teaching work.

He refused, however, to beg by himself, and, fortunately, there were several men on the Corporation, notably the then Treasurer, Mr. William Endicott, who were willing to go with him, to introduce to him such of their wealthy associates as might not know him, and to add a fervent "amen" to his eloquent story of the Institute's aspirations and probable achievements, could it but secure this essential chance to grow.

The following hasty note to Mr. Endicott is typical:

. . . Unless I hear to the contrary from you I shall be at the B & Providence Station at 11.30 tomorrow morning, ready to take the 11.35 train for Jamaica Plain, for a grand assault on Mr. —

Should I hear that Mrs. —'s name is down on the books for \$5,000, I shall be agreeably surprised.

Only those devoted gentlemen and the contractors knew just how the "New" building was put up and paid for. It required almost desperate financing, together with the generous guaranteeing of payments by the

Treasurer and others. Unfortunately, it necessitated, also, the paring down of costs, so that what was planned to be as great an ornament to the vicinity as is the Rogers Building, was shorn and mistreated, by the urge of poverty, until it became the sorry thing, architecturally, that we see. Walker would not consent, however, to such unwise measures within the building; consequently, from the teaching point of view, the chemical and physical laboratories, which were the main occupants of the "New" building, were, at the time of its dedication, among the best in the world.

A third problem to which President Walker gave early attention was that of the physical welfare of the students. This important side of their life, at that period almost completely neglected in every college, had been peculiarly overlooked at the Institute: first, because of the overemphasis placed by President Rogers and his associates upon uninterrupted study and laboratory work (a reflection of this attitude is the fact that, until after Walker came, no man could graduate until he had passed, in his senior year, examinations upon practically every subject studied by him during his four years); and, secondly, because the absence of dormitories and the fact that the student body was then so largely made up of "commuters," made their getting together for athletic or social purposes practically out of the question. A gymnasium existed, in the "sand lot" next to the Rogers building, and there were baseball teams of uncertain and spasmodic life. But it was not till December, 1881, that the question of a regular appropriation for the gymnasium was taken up, and it was not till the following April that the building of a court for the novel game of lawn-tennis was even mooted. The new president took a lively interest in both matters; and a year later

there is found in the Faculty records the amusing anomaly that this body granted the use of the gymnasium for a dance, over the protests of a more strait-laced committee of the students, which had refused it.

Following the tradition of the Institute which had always frowned upon what Professor Rogers, had he ever stooped to inelegant language, would have called "flummeries," there had been no inauguration ceremonies when Walker took office in November, 1881. It was planned, however, that at the simple graduation exercises on May 30, 1882, the ex-President should formally hand over to the actual President the responsibilities of his office and the metaphorical keys of the school. It was characteristic that General Walker ordered the flag which usually, on Memorial Day, floated at half-staff over the Institute, to be sent on this occasion to the top of the pole. He would not have his young men, he said, "leave their *alma mater* under a symbol of mourning."

Huntington Hall, the general meeting-place of the students, was crowded on the early afternoon of the 30th of May, 1882, to witness the unadorned and somewhat dreary ceremony of graduation. Many had been attracted, however, by the fact that they were to hear the two outstanding leaders of the Institute, Professor Rogers and President Walker. At the appointed time, the latter arose and, without preliminary hesitation and with surpassing eloquence, introduced his predecessor as the great leader who had established a new day in higher education. Both men were visibly overcome by emotion and, as Professor Rogers rose to reply, "his voice," to use General Walker's own words,

was at first weak and faltering, but, as was his wont, he gathered inspiration from his theme, and for the

moment his voice rang out in its full volume and in those well-remembered, most thrilling tones. Then, of a sudden, there was silence in the midst of speech; that stately figure suddenly drooped, the fire died out of that eye ever so quick to kindle at noble thoughts, and, before one of his attentive listeners had time to suspect the cause, he fell to the platform instantly dead.

A year later, at the graduation exercises of the Class of 1883, the Corporation having voted to call the original building of the Institute by the name of him who had wrought his life into it, President Walker uttered the following eloquent words in dedication:

Here, in this hall, one year ago, occurred an event which seemed at the time indeed most tragic and terrible. A great and good man, who for thirty years had been one of the most conspicuous figures in this cultured community, whither he had come from a distant State, already crowned with the highest honors which genius can command; who had in his own person exemplified with a rare fidelity all the virtues of the scholar and the citizen, to which was added the supreme grace of a philosophic eloquence that made his expositions of scientific truth radiant with a light which scarcely seemed to come from earth,—this man, whom we honored and loved, to whom we looked up as to master, teacher, father, fell, an unfinished sentence on his lips, instantly dead in our midst.

He had begun the wonderful story of electrical invention, when, without a warning, the clarion voice ceased, suddenly as when the electric circuit is broken; on the half-spoken thought fell the veil of eternal silence; over the eye that even at the instant flashed fire was drawn the film of death.

At the time, in the act, it seemed to every spectator a tragedy replete with all the elements of terror and grief. Yet to me, at least, even before that stately and beloved form was laid in the grave, the whole character and bearing of the event had undergone a transformation.

I saw that only a scaffolding had fallen, revealing to

the view the sublime perfection of a truly finished life. What place could have been better suited for that farewell to earth? "Dying in harness" had for years been a favorite phrase upon his lips; and at the last he died, a good knight indeed, full-panoplied and at his post.

What ending could have been more sublimely appropriate to a life so chivalric? Where else, and how otherwise, should we have died than among his own works, in the very act and part of self-denying duty?

And now the Corporation of the Massachusetts Institute of Technology, gratefully recognizing WILLIAM BARTON ROGERS as the founder of this school of industrial science, entertaining a profound appreciation of his vast and varied gifts, and of his vast and varied works in the interest of science, education, and human progress, and desiring to hold up his name and character to the youth who, through future generations, shall enter this school, as a bright example of high manhood, of scientific enthusiasm, and of heroic devotion to duty, do, here and now, affix to this structure, as its official title, in perpetuity, the name,—"The Rogers Building."

CHAPTER XIII

STRENGTHENING THE INSTITUTE

THE seven years between General Walker's coming to the Institute of Technology in 1881 and what he calls, in his annual report, "the fortunate year" of 1888, was a period crucial beyond anything that the comfortable heirs of his labors can to-day even conceive. The Institute's poverty during that time far exceeded that of most other educational institutions, and it was a penury made harder by seeming public indifference. The rapid expansion of new fields of science, such as that of electricity, demanded continuously broader opportunities for the students and also great additions to equipment and teaching space. The very success of the Institute, largely due to Walker's coming, and resulting in practically a trebling of the attendance in those seven years, was, as he frequently pointed out, a real source of financial embarrassment, since every college student costs more than he pays and, in the case of an institution giving so much of its teaching through expensively equipped laboratories, costs markedly more.

Furthermore, the Institute was distinctly overshadowed, during those struggling years, by Harvard University which possessed, in the excellent Lawrence Scientific School, a department closely paralleling Technology, and the friends of which believed that efforts towards expansion would better be expended upon that enterprise, backed by the prestige of the oldest University in the United States, than upon an

independent, untried school. With notable exceptions, the Massachusetts sources from which large gifts might be expected were thoroughly committed to Harvard, and were indifferent or even hostile to the Institute. Already the older institution had made several approaches towards a plan for consolidation, the earliest having been vetoed, in 1870, by President Rogers, who made in his diary the following laconic memorandum:

Visit from Charles Eliot from $11\frac{1}{2}$ to $12\frac{3}{4}$. He made a full statement of the plan as far as formed. Mentioned that Messrs. Lowell, Thayer, Bowditch, and Judge Bigelow favored the annexation and thought it would be a noble thing for me to agree to it. I replied that I would be purely and wholly guided in anything I did or agreed to by what I regarded as the interest of the Institute and the public. That I could not see any advantage to the Institute from the proposed change but the gain of some funds—but that the Institute would be a great loser by relinquishing its present independence, and that this would be the real result however veiled in the plan. . . . He again spoke of the wish to name our school for the Rogers family. I expressed my repugnance to all such names.

A second definite attempt to absorb the Institute, made in 1878, had been almost successful, for the school then reached its lowest ebb financially, and its friends had become utterly discouraged. This scheme was frustrated only through the self-sacrifice of Professor Rogers in resuming the presidency, and through the zeal of his associates in raising, with incredible labor, the \$100,000 already referred to. Upon bringing Walker to Boston, all those who advocated an independent Institute of Technology had impressed him with the fact that this menace still hung over the school. It was, indeed, a very real danger throughout those

seven difficult years. There is little documentary evidence to prove this; but those who were close to President Walker at that period know how many, and how subtle, were the attempts to compromise the Institute's autonomy.

This critical situation was not lessened by the fact that Harvard, at that time, was committed to an extreme position on the "elective system," undergraduates having very nearly a free hand in choosing the nature and sequence of their studies; whereas the Institute had always maintained that, while the student might well have a choice of "options" in his course of study, the chief lines should be laid down for him, in order that he might be certain of a well-grounded and well-balanced introduction to his chosen profession. Two quotations from magazine articles written by President Walker give his points of view on the independence of schools of technology and on the elective system. The first is from an article published in the *Atlantic Monthly*, in 1893, and the second from one issued in the *Educational Review*, in 1894. Both are to be found in a volume of his collected papers published after his death.* On page 50 we find an argument, the second part of which, vividly true at the time, seems rather odd to-day:

That the students of technology throughout our country do, as a body, apply themselves to their tasks with wonderful energy and enthusiasm is a fact so familiar that it hardly needs to be adverted to here. The accession of such students to a great university would doubtless do much good to the university; but that the technical school would be better for the association may be questioned, in view of the multitude of distractions which beset ordinary student life and the frivolity of many of the interests which are there deemed of prime importance. On their

* Discussions in Education; Henry Holt & Co., 1899.

part, young men do not greatly care to go to schools where they are not respected equally with the best; where all the praise and all the prizes go to others; where the stained fingers and rough clothes of the laboratory mark them as belonging to a class less distinguished than students of classics or philosophy. Professor Shaler remarks upon "ancient prejudices concerning the humble position of all mechanical employments." Is it quite certain that those prejudices are even yet so far worn out of the public mind that the students and teachers of technology may not feel more at ease by themselves, in schools devoted to their own purposes, than in schools where snobbishness makes odious comparisons, and where fashions are set in respect to student life, conduct, and dress which they have neither the means nor the inclination to imitate?

On page 57, it is argued:

Can a young man be said to have passed through the disciplinary period until he has been subjected both to mathematical and grammatical gymnastics, and to hard, positive training in the elements of logic, philosophy, and classical scholarship on the one hand, or of physical or natural science on the other? From my own observation of several classes leaving a preparatory school, and of several times that number of freshman classes entering a college or technical school, as well as from reflection upon the nature of the case, I should not be disposed to answer the foregoing question in the affirmative. On the contrary, I believe that the first two years of the ordinary American college course should be regarded as belonging distinctly to the disciplinary stage, in which the subjects of study should be prescribed by teachers to pupils; in which lessons should be regularly assigned and recitations punctiliously exacted, the idea of mental exercise and training forming still the predominant motive on the part of the instructor. In saying that, in this stage of education, subjects of study should be prescribed by teachers to pupils, it is not meant that the same subjects should necessarily be prescribed to all pupils. Consideration might be had, in a large degree, of individual aptitudes and inclinations.

It has seemed best to go thus fully into the relations of the Institute and Harvard, because most of what President Walker undertook in those first years of his administration was for the purpose of strengthening his institution so fully on every side that it would be able to maintain its independence. He sought also to prove that Rogers and Runkle and he, as the leaders, and a host of their devoted adherents, as supporters, were right in their contention that, to reach its highest possibilities of achievement, a school of applied science should be permitted to develop by itself, untrammelled by hoary traditions, and free to use that essential scientific tool, unlimited experimentation.

How fully Walker was justified in what some of his contemporaries regarded as his baseless apprehensions was proved by the fact that, within a very few years after his death, the most formidable attack ever made upon the Institute's independence came close to success, although the school, when he was taken from it, was incalculably stronger in wealth and prestige than during the struggling seven years after he assumed the presidency. That he, and those who thought as he, were right in their steady fight for absolute autonomy is conspicuously proved by the commanding position of the Institute of Technology to-day. Just as Rogers is entitled above all others to be called the Founder, so Walker is transcendently deserving of the title of Preserver.

To use a military figure quite proper with so eminent a soldier, General Walker, immediately upon assuming the presidency, began to strengthen the Institute's defenses along several main lines. The fundamental need was, of course, for money with which to erect much-wanted buildings, to increase the distressingly low salaries of the staff, and to expand the school in

such wise as to forestall the rapidly developing applications of the sciences. The gallant way in which he went to work to secure the "New" building has already been recounted. When that building was opened in 1883, land already had been purchased on Garrison Street on which to erect new quarters for the "mechanic arts shops," and to install the gymnasium.

To Garrison Street, also, was moved the Lowell School of Industrial Design, which had been occupying much-needed space in the upper story of the Rogers Building. Extensive alterations were undertaken in that structure to permit of a development of the laboratories of Mining Engineering made possible by the removal of the chemical and physical laboratories to the new building. In that "new" building, moreover, special space for the novel course in Electrical Engineering, established in 1882, was provided.

The most serious financial undertaking of that difficult time was the petitioning of the Massachusetts legislature for a grant of \$200,000. This aid was asked because of the past and prospective services, in the industrial development of the Commonwealth, of the school and of its staff and alumni. In this extremely up-hill enterprise of persuading the Legislature to appropriate so considerable a sum for a privately endowed institution, President Walker's long training at Washington was of the highest value. His prestige in the nation as well as in his own state was, of course, a most valuable asset, and he had powerful friends, both inside and outside the Institute, to work with and for him. They required marshaling, however, the strong forces in opposition needed strategic handling, and legislative committees had to be persuaded both of

the merits of the Institute and of the genuineness of its financial straits.

For the task of convincing committees, General Walker was peculiarly well fitted. While not possessing the marvelous oratorical powers of President Rogers, he was armed with a downrightness of argument, a capacity to make figures alive, and an enthusiasm for his work, that produced a lasting impression upon all who heard him. In 1887, \$100,000 to be paid in two annual instalments was granted, and, in the following year this sum was doubled. As an equivalent, the Institute was required to establish a certain number of State scholarships for Massachusetts youth unable to pay the tuition fee.

This was, of course, a distinct gain for a school as hard pressed as was the Institute at that time; but it gave only small relief to the burden of poverty under which, throughout President Walker's whole administration, the institution labored. This matter is stressed because the strain of it upon the responsible head, who took his responsibilities so seriously, was tremendous. That strain, as he more than once remarked, "shortened his life by ten years." He was never able to shake off his anxiety as to finances, and it is remembered that, in following the Bostonian habit of reading, every evening, the *Transcript*, he always turned first to that page upon which might be recorded a bequest to Technology. His disappointment when some decedent who should have remembered the school in his will failed to do so, was much more keen than if he himself had counted upon being a beneficiary.

That the Institute authorities were not unmindful of this ceaseless tax upon his nervous energies is indicated by the following letter written, March 25, 1885, by Mr. Tappan, then secretary of the Corporation:

The decrees of the Executive Committee are seldom so pleasant to communicate as the one passed today at a surreptitious meeting down town, directing me to tender you a vacation for such length of time, beginning in May, as may seem to you compatible with the interests of the Institute. Your devotion and success entitle you to a release, and should you hesitate to accept a leave of absence on these grounds we would venture to suggest that the Technical Schools of Europe would amply repay your study, and that from a visit to them you could bring back much of great value to us. To enable you to do this, \$1000 is at your service. This sum does not come from the funds of the treasurer, but is the willing contribution of friends who can think of no better way of promoting the welfare of the School than by giving you an opportunity for rest.

During this short journey abroad, he wrote to his eldest son, Stoughton:

Coblence, May 30, 1885.

We have reached this place in our wanderings, having neglected your warnings so far as to stay over a second night in Cologne. Strange to say, we had a very pleasant time, partly because our hotel (du Nord) was a very pleasant one; partly because we had an agreeable company. We came up hither by boat, yesterday. Certainly the natural features of the Rhine do not surpass those of the Hudson, if, indeed, they equal those of our own river: but it must be confessed that the Castles of the old Robber Barons "hold over" those of our tobacconists and successful pork packers.

I grieve to learn through Ambrose's letter to Lucy recd yesterday, that Yale's baseball team went down before Nichols and his men. Better luck next time!

I wish you were along with us, too. Some time, when our ship gets in, I will let you take the two kids, Ambrose & Francis, on a cheap tour through Holland & Belgium & up the Rhine—a knapsack tour, if you are not too grand!

We go from here to Mayence, thence to Heidelberg, thence to Parry.*

I am writing in the full view of the magnificent Castle & fortress of Ehrenbreitstein, one of the noblest works it was ever my fortune to gaze upon. Modern artillery, I dare say, would knock it to pieces in a few hours; but it is wonderfully beautiful to your eyes.

During the following summer, he went to Europe again, for a few weeks. A letter to his elder daughter has been preserved:

London, July 27, 1886.

When we were here last year the English people were trying a change of ministry, you remember; and learning that I had come again, they have been so good as to get up a similar entertainment for me this time. Our friend, Ld. R. Churchill is this morning gazetted Chancellor of the Exchequer & leader of the House of Commons. Shades of Pitt, Peel & Palmerston!

I came plump upon Prof. Foxwell, in the Haymarket, the other day. He was up from Cambridge for only an afternoon, and couldn't give me much time; but he is to be in Cambridge when I visit the Marshalls on the 10th.

I shall probably go to Oxford about the 5th, and then to Cambridge. Thence northward to Edinburg, stopping at Durham to see *our* Cathedral. I have found a beautiful etching of the old Norman Archway at Bristol, which I have already "shipped" to Boston. . . .

To-night I am going to the Lyceum and afterwards sup with Irving.

Night before last I went to the Savoy with Elmer & Williams & saw the Mikado. They have a stick for the Prince Lover, but Grossmith is just as funny as Koko as he was last year.

Last night I went to the "Colonies," as they call this year's exhibition. It was rather stupid as an exhibition;

* Walker was very fond of Artemus Ward and sometimes adopted his method of spelling.

but the illuminations of the fountains by electric lights, was simply indescribable. I never saw such gorgeousness.*

Yesterday I bought a Staffordshire cat & dog for Evelyn, which I expect will be among the chief glories of that lovely young female's collection. They are in my baggage and I am going to pay duties on them like a little man.

Give my dear love to all the kids, & to his Serene Highness, the Prince Imperial & Heir Apparent.

A second pressing need of the Institute was to place the administrative machinery upon a sound and progressive basis. The setting-up, soon after Walker's inauguration, of an executive committee of the Corporation has already been noted. But the Institute's progress depended even more upon the Faculty. From the beginning, he placed himself in exactly the right attitude towards them, constituting himself their genuine leader by championing their individual aspirations, coördinating their sometimes conflicting interests, and working harder than any one of them to further the well-being of the school. The late Professor Cross, who was a member of the faculty for nearly half a century, wrote very justly, shortly before his death:

I have always regarded Walker's absolute insistence early in his presidency that the Faculty of the Institute, not members (often intermeddling ones) of the Corporation, should be the body to decide educational questions relating to its work, as perhaps the most fundamentally important step which he ever took. Without this he could not possibly have held his faculty firmly together nor have made them so feel their own responsibility as to act thoughtfully and with foresight. This also was a powerful aid to the retention of that solidarity of the Faculty, its power in team-work and freedom from cliques that has

* This was one of the earliest uses of electric light on a large scale.

been of such great importance through its history. Incidentally, it saved him from embarrassment since he could truly and properly hold the Faculty responsible for what it decided by vote. The manner in which the Faculty held together, and, I think I may say, almost without exception regardless of individual interests, was a great help in carrying us through the long succession of "lean years."

Another prime source of Walker's strength with the faculty was his habit of visiting them in their offices, classrooms and laboratories at frequent intervals, of keeping in close touch with their methods and plans of work, and of bringing visitors to call upon them, asking them to explain those matters in which the outsider was likely to be interested, and tactfully calling attention to such individual achievements as it would have been out of place for the teacher himself to mention.

Moreover, he took unusual pains to be present at all meetings of the faculty and of its important committees, although his many outside duties—all of them undertaken from a sense of public obligation, and most of them in the well-founded belief that such participation in public affairs would be of value to the Institute—often made such attendance difficult. In those meetings he was always the equal participant, never the educational autocrat. He successfully avoided the too common practice of college executives in this supposedly democratic country, of entering a meeting of the faculty clothed with presidential majesty and armed with special authority from the trustees to lay down to these "servants" of the college, without possibility of real argument or true discussion, certain predetermined decrees. Every plan which he brought forward did not take final form until it had been thoroughly discussed in genuine town-meeting fashion; and it is safe to say that seldom in the history of higher

education in the United States has there been more effective "team-work" than between President Walker and his devoted faculty.

A third supporting force which Walker took every pains to cultivate and strengthen was the body of the alumni. There was already in existence a very loyal Alumni Association, established in 1876. To its officers and members Walker turned on every proper occasion for advice and aid. Their first important service, after the tragedy of May 30, 1882, was to raise a William Barton Rogers Scholarship Fund to aid needy students through loans. This has been of much value in supplementing the amounts otherwise available.

Their next conspicuous work was in helping to secure the State grants, to which end they used the wise expedient, doubtless suggested by the experienced General, of bringing pressure to bear upon the legislators through their constituents at home. By 1901, and again in 1911, this plan (first tried under Walker in 1887), proved practically irresistible, for by those later years scarcely a Massachusetts town but had at least one Technology graduate among its most influential citizens. Altogether the Institute received, up to 1921, about \$1,600,000 from the Commonwealth, in addition to the original grant of land; but, in that year, a change in the Constitution made all further gifts to privately endowed institutions impossible.

President Walker coöperated very closely with the alumni in other sections of the country in establishing branch associations, and was always ready, when practicable, to visit such organizations in order to keep them in touch with the progress of the Institute. It was during one of these visitings that the following was written to a member of the family:

New York, Feb. 3, 1891.

I have got around thus far from Chicago, feeling only a little the worse for wear. The 25 hours' joggle-joggle on the cars, travelling 40 miles an hour, has left my head a little "swimming": but that will be gone to-morrow.

The Chicagoans kept up their attentions till the train left, several of them actually "seeing me off" on the Michigan Southern.

Before they let me go, I admitted that Chicago was a great city, and the future Hub of the Universe.

One of President Walker's last services to the alumni body was in assisting it to create, close to the Institute buildings, a Technology Club to be used as a focus for graduate interests, and to bring faculty, corporation, alumni, and senior undergraduates into informal, mutually coöperative association. An enterprise so novel for the Institute and involving so much financial outlay, required, of course, many meetings and much anxious discussion as to ways and means. Busy as he was, President Walker gave faithful attendance whenever his presence could be of help to the undertaking. Although, privately, he believed that the time was not yet ripe for the establishing of such a social club, he deferred to the opinions of others and never gave the slightest hint, publicly, of his misgivings.

Fortunately, his judgment in this case was mistaken, and, within a few years, the Technology Club had the privilege of doing special homage to his memory, by serving as headquarters for an earnest campaign to prevent what, to Walker, would have been the greatest of calamities, a proposed "merger" with Harvard University under the terms of which all those things against which he and President Rogers had so steadily battled would have been brought about, and the outstanding characteristics, and even the identity, of the

Institute would have disappeared. Without realizing it, therefore, President Walker performed one of his greatest services to the Institute, in lending his personal prestige and contributing his ripe experience to the founding of the Technology Club. At the time, however, it seemed merely another instance of his simple self-forgetting and his unceasing friendliness to those among the alumni who were emulating him in his intense devotion to the Institute.

In this connection he wrote, on May 20, 1896, to his son Francis, a graduate of Technology:

. . . We have just formed a Technology Club, with a clubhouse directly across Newbury St. The club is to embrace members of the Corporation, the Faculty, and past and present students. I think it will be a success from the start; but I should like to do what I can to help its membership. If you are willing to join, I will gladly pay all dues, whether admission or annual. In any event I should wish to do as much as this for the club; and shall be glad to have it take the form of your membership as well as my own.

A few months afterwards he wrote to Munroe,—and this emphasizes his solicitous interest in every problem concerning the Institute:

Your letter opens up a very serious question. The power to speak of the Club as a place where wines, etc. are not used, is one worth a great deal. It ought not to be resigned for a small reason.

I should say that in any case the Club ought to have nothing to do with the purchase or sale of the wine. Indeed, having no license that would be illegal. A gentleman giving a dinner there might send in his own cigars—query, also, wine? There is the rub. If done in one case why not in another? Also, if the use of wine in the Club is ever brought into question, we forfeit our power to say

positively and straight out, that this is never done—we have to explain; and the necessity of explanation is a very weakening thing.

If the absence of wine is to be the cause of embarrassment either Sedgwick or I could set the breakfast up at the St. Botolph, where no objection could exist, and we should be glad to do so. It would be easy to explain a change of base.

But after all, is it very important to have wine? The great majority of us don't take it at luncheon, ordinarily. I am a free user of wines and spirits, taking them whenever I like and always using them at dinner; but not even on Sundays do I take even beer with my luncheon, as a usual thing.

My impression is that Captain Mahan would be pleased to be told that we have a rule of this kind, for the good of the students. . . .

I don't wish to impose my opinions on you. You are Prest. of the Club and understand the situation as well as I do. As I said, either S. or I could and cheerfully would have the affair come off at the St. B.

The fourth foundation of the Institute's safety which Walker took early and unremitting steps to strengthen and enlarge, was the physical, social and moral welfare of the undergraduates. Up to his coming, that body had been made up almost wholly of what the modern collegian would call "grinds." The Institute was exclusively a day school, attended chiefly by suburban youth who lived the somewhat drab life of the proverbial "commuter," and whose social interests, if they had any, were in their own neighborhoods. The comparatively few young men who came from outside Massachusetts lived in boarding houses, or, more generally, in dreary lodgings, getting their meals wherever they might happen to be.

The only possibilities for coming together were in

the meagerly equipped gymnasium,—from which the “commuters” were practically excluded because the only time available for exercise must be spent by them on trains,—and in a restaurant, located above that gymnasium, the running of which was “farmed out” to successive proprietors, each more incompetent than his predecessor. There were no “student activities” except sporadic baseball leagues among the classes, which practised upon the sand-lots of the emerging Back Bay, and a paper, the *Spectrum*, which shed its light for less than two years. Of fraternities or clubs there was practically not one, and substantially the only social intercourse among most of the students was as they ate their cold lunches together in the boiler-room, or in some obscure corner of a laboratory.

Consequently, not only was there almost nothing in the way of undergraduate loyalty, but the students were missing one of the most valuable sides of higher education, that of daily contact under all sorts of conditions with a large group of like-minded men. President Walker felt this lack keenly, and from the first did all that he could, consistent with the severe traditions of the Institute and the difficult conditions, to unify the student body and encourage it to engage in healthful intercourse and manly sports. Just what was the real opinion of a trained soldier like Walker of the military drill as it was then given to all freshmen, as a condition of receiving Federal aid under the Morrill Land Grant, it was impossible to guess; but he doubtless realized that, at best, it could go only a short way towards promoting the physical welfare of the students. He gave every encouragement, therefore, to the gymnasium and provided a director.

Although, as already said, he was extraordinarily keen on college contests in baseball and football, he

was not a believer in competitive inter-college sports for the Institute, maintaining that the early closing of the school year (in order that students might earn money during the summer vacation), the absence of dormitories, and the severity of the required studies, made such games not feasible. Moreover, he was seeking for the Institute forms of sport which would bring in as many of the undergraduates as possible, and he found these, not in spectacles like football, but in the various track events in which, by the year 1888, the Institute, under his encouragement, had built up a solid reputation. The admirable system under which athletic games at the Institute are now stimulated and controlled, owes its impulse and direction to his wise initiative.

His strongest hold upon the undergraduates was gained, however, through his delightful policy of the "open door." When he first came to the Institute, the Rogers Building was so crowded that he could have no place to himself, but occupied a crowded corner, lighted by only half a window, and shut off by a semi-partition from the ceaseless bustle of the secretary's office. The bursar occupied a similar cell lighted by the other half of the president's window. In that cubicle of his, General Walker, for nearly three years, not only received visitors, interviewed students and transacted all other Institute business, but wrote substantially all his letters long-hand, the typewriter being but in its infancy, and the president refusing the use of a secretary because of added cost. If everybody at the Institute must economize to save it from financial disaster, his duty, he maintained, was to set the example. At his house he had a commodious library, and there he often worked far into the night, trying to keep up, single handed, except in so far as his devoted family



PRESIDENT WALKER'S OFFICE
The Rogers Building, Massachusetts Institute of Technology

aided, with the work, not only of the Institute, but of the Census, of his writing and speaking, and of his many other responsibilities undertaken for the well-being of the Institute.

Nor should it be overlooked that President Walker, throughout his long service to the Institute, was obliged to undertake much outside work in order to supplement his extremely meager salary, which, however, was all that the school could afford to pay. Soon after coming to Boston, he writes to Holt, concerning a projected magazine:

Should you assume the support and direction of it, I should surely take a great interest in its success, and would freely contribute to its pages. *That* you may be sure of. I must earn \$1000 a year by contributions to the magazines. That's poz: so, you see, "You have me" as the boys say.

With the opening of the "New" building, in the fall of 1883, President Walker was able to secure a room of his own. Several times thereafter, as the Institute buildings became again congested, he would surrender this space temporarily, retiring to some usually quite inconvenient recess; but, in the main, for the rest of his administration, he was to be found in that accessible room, with the door almost always wide open and with a cordial welcome, no matter how busy he might be, to whomever entered. In this connection, Mr. Holt writes:

President Walker's phenomenal genius as an administrator was illustrated in a habit which one frequently hears commented upon to this day. His office was the first room at the left of the entrance hall of the principal building of the Institute, then on Boylston Street. His desk was across the room and facing the door; and thus he sat during office hours with the door wide open, ready to talk with anyone who chose to come in. Any other administrator of equal importance would have been in an inner

chamber at the end of two or three others, with a secretary or two, to keep people away from him. How he got through his immense correspondence, which seems, like Washington's to have been mainly in his own hand, is hard to conjecture. One of his professors has lately given a clue. He says that although he passed that open door many times a day, he never spontaneously entered it but once; he realized the necessities of the situation. But surely people generally would not do that, or if they would, it was a mark of Walker's genius that they recognized it.

When I was staying at his house, as I did several times, he would often say: "If you pass my office during the day, drop in," and I was more than once bold enough to do it, and he didn't seem to have anything to do but talk. Moreover, when I was staggering under the heaviest blow of my life, he, who had more demands on his time than any other friend I had, and lived hundreds of miles away, found time to do more to help me stand up than anybody else outside of my family.

This remarkable consideration for others was one of General Walker's most conspicuous traits. He had time for the smallest troubles of the most tongue-tied freshman and knew how to bring himself down to that youth's individual plane. However busy he might be, he almost never failed to write to, or to make a call upon, those among his friends who were in sorrow. Furthermore, he regarded it as his special province to visit students who might be ill, or to receive such parents as were seeking advice regarding erring or unsuccessful sons. He had a double advantage: a well-trained memory for names and faces, and an institution small enough for him to come into personal contact with practically every undergraduate. He was extraordinarily happy, therefore, on such occasions as that of Graduation Day, in meeting and greeting the students and their radiant relatives. Personally, he attributed

a large part of his power in arousing and holding the loyalty of his staff and of his students to his practice of the "open door." Therefore it was only after most earnest pleas for him to save his strength that, in the last few years, he consented to have a secretary to serve in some measure as a buffer between his public and himself.

During the "seven lean years" preceding 1888, he not only firmly established the Institute of Technology as a national, rather than a local institution, he not only raised the attendance from 257 to 827, erected two new buildings and inaugurated, as already noted, courses in "General Studies" and in Electrical Engineering, but he increased markedly the attendance of graduates of other colleges; fixed the minimum age of entrance as seventeen; reduced the required maximum hours for recitation and preparation by thirty a week; persuaded some of the more Spartan members of the Faculty that no examination should cover more than three hours, and that a senior should not be asked to submit to tests upon the whole of his four years' work; greatly developed the overseeing of the students, including lectures to the freshmen upon matters of hygiene; extended the entrance examinations to Chicago, St. Louis, Cincinnati, Washington and San Francisco; opened the Institute, in the summer of 1885 and thereafter, to undergraduate workers (the present vogue of college summer schools makes it difficult to appreciate what an innovation that was); permitted the graduates of 1885 to have a "Class Day," and encouraged that class and its successors to many activities not strictly within the scientific curriculum; established the degrees of Master of Science and Doctor of Philosophy; and battled strenuously, in the newspapers and elsewhere, to dispel the prevalent illusion, possibly not altogether

spontaneous, that the Institute was a place in which only the hardest youth, with extraordinary aptitude for mathematics and kindred scientific studies, could make their way.

To be sure, Walker adopted as the motto of the Institute his famous phrase: "a place for men to work, and not for boys to play," and insisted that every student worthy of its diploma should live up to this general standard; but he took the sound position that when one has reached the age of eighteen, it is time for him to put away childish things and to equip himself to be a man. Yet he never failed to emphasize that, to be a man of parts and influence, a youth must have been trained in many other ways than through poring over books and memorizing formulas. As he wrote in his report as President for the year 1886, speaking of the four years passed at the Institute by the graduating class:

Those years had been spent in the work, not of decoration, but of construction; not in polishing the surface, but in building up the substance of mind and character. Little time or thought had been expended in memorizing facts previously ascertained, or in rehearsing the opinions of others; but from the first day's exercise in the laboratory of general chemistry, through all their course, these young men had been taught to see with their own eyes and think with their own minds, weighing, probing, analyzing, testing for themselves, the substances and appearances which formed the subjects of their study, until, through the development of their perceptive powers, through the formation of a habit of careful, discriminating, and minute observation, and through the exercise of the faculty of judgment, the least gifted of them had become capable, as evidenced by the severe test of our thesis requirement, of selecting a field of investigation, isolating the subject matter, eliminating for the time everything alien or adventitious, providing all the conditions of a true experiment, and, through the application of ap-

proved tests, making an actual contribution to human knowledge. This is what we deem education in the best and fullest sense of that term.

Along similar lines is the following, written by Walker to his eldest son, Nov. 17, 1888:

I am very much pleased to learn of your promotion, and trust that the change of duties will not only become agreeable to you, but will give you the opportunity to learn much more of real railroading. I do not, in the least, doubt of your success in your profession if you shall pursue it in the spirit which has thus far governed your course. There are not enough intelligent and active men in that or in any profession, who give themselves loyally and unflinchingly to advance the interest of their employers by all honorable means, and at all times. I say, there are not enough of such men. There are more than enough of men who will half do well, or will do well for a while; but of men who go straight forward doing the best they know all the time and having no interest but that of their employers, there is always a lack, and such men are being looked out for constantly. To such, promotion and success may come later or come earlier; but it is sure to come. Any man who gets the reputation of being thoroughly trustworthy will find himself wanted—in this world. . . .

The school has risen to 825 students in the college proper—an increase of 106 over the last catalogue number. We are fearfully crowded and I anticipate having to build a new laboratory next summer. Where the money is to come from, unless you shall save it out of your salary, I can't imagine.

NOTE. Professor Henry C. Adams writes:

One characteristic of General Walker was very pronounced, and that was his ability to transact a piece of business in a very short time. I remember when I took charge of the Transportation Division of the 11th Census that I went to Boston to seek his counsel and advice. My train left at 12:00 and it was not until 15 minutes before the time that it was necessary for me to leave that he was willing to open up the subject. In that 15 minutes he gave me more fruitful suggestions as to the work I was about to undertake than an ordinary man could have given in a day's conference.

CHAPTER XIV

POLITICAL ECONOMY

SPURRED by the need of a text-book for his sophomore class in political economy, General Walker again took up the long-promised volume already referred to. The following letters to Holt are self-explanatory:

Swampscott, Mass.

August 7, 1882

I enclose, in a registered package, Part I. of the to be famous, illustrious and widely circulated treatise on Pol. Econ. by a writer at present but little known.

I don't see why I shouldn't send you the other parts rapidly: the last within two months, or less.

October 4, 1882

Sorry to give you so much trouble. I enclose the required drawing. There will be no other diagrams in the book, unless you want to put in at the end a picture of the publisher hanging himself in mortification at the reception of the book.

The "Political Economy" was issued in the middle of January. The author's copy must have sent President Walker into one of his fine rages, for he writes a scorching letter concerning its typography.

Four days later, he repented, or at least cooled off; for he wrote from his house, to his publisher:

I hope the red corpuscles of your blood are again in due proportion to the white, and that the whole compound is flowing serenely through your veins, undisturbed by vexations or alarms.

I am myself not so mad as I was. Having just polished off a poor miserable worm of an Editor who had

attacked our m'f'g statistics in the Paper World, or rather, having scrunched the little reptile under my armèd heel, I feel, on the whole, pretty good.

I enclose plate corrections to Pol. Econ.

Measles here: very red and lots of 'em.

The "Political Economy" was favorably received and has held prominent place ever since as an admirable text-book. From the many comprehensive notices, the following, extracted from the *Saturday Review* of June 30, 1883, is worth quoting, both as a criticism from the English standpoint and as an amusing example of the famous *Review* style:

He may; indeed, be credited with having produced a book which keeps much closer to the facts than most treatises on political economy. Its weakest part is in the opening definitions, and, in truth, definitions are "kittle cattle" to have anything to do with. There is no more evil result of the disuse of scholastic logic in modern philosophy than the inability of most modern definitions to hold water. Rare—very rare—is it in philosophy, in politics, in literature, in half a dozen other things, including political economy, to find a definition which does not sin in half a dozen ways, against which the definer could have guarded himself without going further out of his way than Dean Aldrich would have led him. Thus Mr. Walker gives us political economy as "the name of that body of knowledge which relates to wealth," but, almost before we have turned the page, we find him practically unable to define wealth itself. He says "it would be a great pity to lose the word wealth." So it would; but that is obviously not a scientific remark. . . .

When, however, Mr. Walker is once out of the "thorny queaches" of definition, things go better with him. We cannot pursue him accurately, through five hundred closely-printed, and for the most part closely-reasoned, pages. But he is generally shrewd and always well-informed. The differentia of his book may be said to consist chiefly in his championship of what he, following

a bad habit of his countrymen in unnecessarily adopting foreign terms, calls the "entrepreneur system" of explaining the distribution of wealth. The system (in which there is much that is true, though the expression of it is perhaps unduly precise) divides the shares in distribution, after excepting taxation and minor decrements, among four claimants—rent, interest, profits, and wages—instead of among the three—rent, profits, and wages—which have been usual since Ricardo, or the two—the shares of capital and labor—which are also common. This division involves, as will be at once seen, the rejection of the Wages' Fund theory, the acceptance of the strictest Ricardian theory of rent, and the setting up of a somewhat novel theory of profits, in which the entrepreneur occupies a position distinct from that of the capitalist (though the two may accidentally be identical) and distinct from that of the mere employee, inasmuch as his wages (so to term them) are determined by individual excellence and success, while in considering wages proper individual excellence is more or less left out of sight. There is considerable ingenuity in this subdivision, and it enables Mr. Walker to knock some economic fallacies of the Communist order more conveniently on the head than he might otherwise be able to do.

As his colleague in the department of economics at the Institute, Professor Davis R. Dewey, says, referring to the theory of distribution, thus criticised: *

Mr. Walker was never satisfied with the exposition given in his larger and earlier "Political Economy" and did much to clear away ambiguities in a fresh and happier statement in the smaller work [the "Briefer Course," published in 1884]. Over this theory there has been much sharp controversy, much of the difficulty, to my mind, being due to the fact that the critics do not sufficiently recognize that Mr. Walker's theory calls for a condition or state of perfect competition at every stage, never, of course, as yet realized in the actual economic world.

* *Review of Reviews*, February, 1897.

It is interesting to quote further from this paper of Dr. Dewey's, for no one was closer than he to President Walker on the side of economics, and none could more fairly expound Walker's real views. Under the caption, "Walker, the Economist," he writes (*op. cit.*):

For what does President Walker stand as an economist? In brief, the reply may be grouped in four headings under Wages, Theory of Distribution, Money, and Social Economics. In his first work, on "Wages," he immediately attracted attention, not only by the adoption of the historical method, not yet common in this country, but by his attack on the wage fund theory. It is unnecessary to discuss the historical origin of this criticism; it is only necessary to say that in the overturn or modification of the somewhat musty and classic wage fund theory, no name is more frequently mentioned than that of President Walker. It was a welcome deliverance. The opportunity and the recompense of the laborer are not measured by the fullness of the capitalistic purse, but by the productivity of labor itself. This idea commended itself to the practical sense, experience and ideals of the American people. . . .

Closely connected with this analysis is Mr. Walker's theory of distribution, in which profits are treated as rent, and the laborer appears as the residual claimant in the great process of the distribution of wealth. . . .

General Walker's views on money are probably fairly well known. He gave a broad scope to the term money, including bank notes; he introduced the term "common denominator in exchange," as a substitute for the phrase "measure of value"; and followed his father in his opposition to the so-called banking school. . . .

In the domain of social economics, President Walker has written no systematic work. His treatment of such questions in his "Political Economy" is fragmentary and incomplete, and the general reading public has perhaps drawn conclusions, often superficial and inaccurate, upon chance reading of a magazine article. There were three things which aroused President Walker to sharp speech: Shallow philosophy, a suggestion of non-fulfillment of

obligations or confiscation, and any attack upon law and order.

Francis Walker, the general's son, himself an economist of standing, writes, concerning his father:

He was a firm believer in competition as the fundamental basis of economic life, but he also recognized that competition did not always function fully or properly and that, consequently, government supervision or regulation of private business was frequently necessary. In the concrete application of these ideas he pointed out that the corporation itself was an artificial creation of the state, and recognized the propriety of regulating large industrial corporations, while he sharply condemned the "trusts." In an article on Socialism in *Scribner's Magazine*, in 1887, he compared the looser forms of business combination and the large corporation in their effects on competition:

"Now combination will enter, more or less, to affect the actions of men with respect to wealth. But such combinations are always subject to dissolution, by reason of antagonisms developed, suspicions aroused, separate interests appearing; and the expectation of such dissolution attaches to them from their formation. The cohesion excited, as between the particles of the economic mass which the theory of competition assumes to be absolutely free from affiliations and attractions, is certain to be shifting and transitory. The corporation, on the other hand, implies the imposition of a common rule upon a mass of capital which would otherwise be in many hands, subject to the impulses of individual owners. But it is because the hand into which these masses of capital are gathered is a *dead hand* that the deepest injury is wrought to competition. . . .

"I do not say that the services which corporations render do not afford an ample justification for this invasion of the field of private activity. I am far from saying that, whatever injuries one might be disposed to attribute to the unequal competition between

natural and artificial persons, thus engendered, the evil would be cured by state regulation and control. Government will never accomplish more than a part of the good it intends; and it will always, by its intervention, do a mischief which it does not intend. My sole object is to point out how deeply the industrial corporation violates the principle of competition, and how absurd it is to claim for it the protection of *laissez-faire*."

It was years after this that the corporation was developed as a form of monopolistic combination either as a holding company or a merger of competing companies, but the application of his general views to these later developments is probably sufficiently obvious.

Apparently he never published anything more definite than this on the trust question, but when the newspapers reported the decision of the courts in the first Sugar Trust Case (People v. North River Sugar Refining Co., 1889) he greeted it with the greatest satisfaction. Professor Jenks in the preface to his book on the Trust problem, published in 1903, writes as follows:

"In a letter written but a few days before his death, the late General Francis A. Walker, commenting upon this fantastic attitude of some of his friends who were satisfied to call Trusts the product of evolution, remarked that he supposed the modern train robber was merely a normal development of the old-fashioned, commonplace highwayman, and continued: 'Some evolution is worthy of only condemnation. Some evolutionists ought to be hanged.'"

This attitude is especially significant when it is remembered that his theory of profits was the most complete justification of the gains of what he often called the "captains of industry." The profits which his theory explained and justified were the differences in profit arising between different competing business enterprises, due to differences in efficiency of management under competitive conditions.

At the time of Garfield's election, the tariff, that perennial attendant upon partisan activities, was particularly in evidence, and there was created a special commission (a favorite device for giving the impression that the tariff has at last been taken out of politics) to be made up in an ostensibly non-partisan way.

From many directions President Arthur was urged to appoint General Walker to this commission, a strong petition to that effect from thirty of the banking houses and one hundred and thirty of the mercantile houses of Boston being sent to Washington. Even so convinced a protectionist as Senator Hoar was active in urging this appointment. He declared, in his speech at the dedication of the public library at North Brookfield, September 20, 1894:

I regret the absence on this occasion of my friend and pupil, General Walker, the famous son of a famous sire, the accomplished scholar and gallant soldier who has been distinguished in so many fields. I suppose he is easily, in the estimation of scholars at home and in Europe, the foremost living American economist. While I need not say here that I differ from him in his conclusions in regard to one very important question, I manifested my respect for him by earnestly commending him to President Arthur as a member of the Tariff Commission of 1883. I was satisfied that whatever might be his theories, the existing manufacturing interests of New England would be safe with him, and that a protective tariff which he could join in recommending would be likely to be more permanent than one which came from zealous partisans of high protection. My recommendation was earnestly reinforced by Mr. Folger, then secretary of the treasury, who told me that President Arthur himself thought we were right, but felt unwilling to take the grave responsibility of appointing, as a New England member of the Commission, a gentleman not in accord with the political opinion prevalent in New England.

The reason for the President's failure to secure the services of this "foremost living American economist" is found in a note penned by Walker in one of his scrap-books :

When the qu. of the App^t. of the Tariff Comm. was mooted, I was waited on by three of the largest mfrs. of N. E. One repr. the cotton mfr., one the woolen and one the worsted, asking me to allow my name to be used. I replied that as I had just come to the Institute, it would be impossible for me to serve. At last these gentlemen, after representing that the mfrs. of N. E. had always upheld the School, and that they were deeply interested in having me apptd. secured my promise that I *would not say that I would not serve*, leaving that qu. till after it had been determined whether the Prest. would appoint me. Then the Silk Assoc. passed resolutions asking my appt. Curiously enough it was my known views of the duties on Lumber which caused me to be left off. Senator Frye of Maine and somebody from Mich. took the matter up actively and kept Prest. Arthur from nominating me—of which I was profoundly glad.

As was natural for an economist and for the son of a father who had taken so keen an interest in the earliest railroads, President Walker felt a special concern in the development of transportation and, while at Yale, would have served on the state railroad commission of Connecticut had it not been decided—he being then on the Census—that he could not hold two public offices at once. Not long after returning to Massachusetts, he acted at least twice as arbitrator in disputes between a railroad and a community.

Frequently, too, at this time and during the rest of his life, he was invited to Washington to give advice or testimony, not simply regarding the Census, of which, for more than a quarter of a century, he was looked

upon as the dean, but on many other matters of public policy. For example, Senator Blair writes, October 11, 1883:

Some weeks since I wrote to you a letter to the effect that the Committee on Education and Labor would ask you to express such views as may seem to you pertinent to be considered in the pending investigation of the labor question. We hope to get through here early next week.

Concerning those views, his son Francis has recently written:

He opposed excessive or misdirected combinations of labor, although he was a strong and consistent supporter of trade unions, in so far as they were necessary to give to the workers an equal chance to make a fair bargain with their employers. A striking expression of this view is found in the following excerpt from an article published in 1888 in the Princeton Review, on the Knights of Labor:

“Giving such a qualified approval as I do to the economic effects of trade-unions, I am compelled to believe that the full realization of the professed purpose of the Knights of Labor would be to institute a hideous and intolerable tyranny, which would be worse by far than the tyranny that would result from unrestrained power on the part of the master class and would speedily lead to a wholesale destruction of wealth and a general prostration of industry. But, it will be asked, is not the object of the Knights of Labor the same as that of the trade unions? and is not the difference between these agencies for affecting that object one of degree? To both these questions I answer, Yes. This is precisely one of those cases recognized by the law, and even more fully by political and social philosophy, where a certain difference in degree may constitute a difference in kind.

“The distinction to be observed is just this: The familiar labor organizations may be said, in a general way, to have strength enough to offset the great economic advantage which the employers of labor,

through their higher intelligence, their larger means, and their initiative in production, enjoy in the unceasing struggle over the distribution of the product of industry. Through a long trial they have shown that they have strength enough to secure a full, attentive, and respectful consideration of the interests and claims of their members. They are strong enough, in a majority of instances, to compel a compliance with their reasonable demands, and to beat any combination of employers which shall attempt to act unfairly or abusively. On the other hand, they have not, as a rule, been able to overbear the rightful authority of the employer, to interfere with his necessary control of his own business, to render it unsafe to undertake contracts, to transfer the initiative in production from him to his workmen.

“In a word, something approaching an equilibrium has been reached between the powers of the two parties, securing industrial peace to as great a degree as could be expected from poor human nature, under the rightful and growing—the fortunately growing—ambition and self assertion of the working classes. . . .

“No good comes from the exercise of unchecked and irresponsible power in industry, any more than in government.”

On November 10, 1883, Walker reported as a member of a special committee appointed by the American Academy of Arts and Sciences—the others being Professor Wolcott Gibbs and Mr. J. Rayner Edmands—on the adopting by communities of the “Four Zone” Standard Time about to be put into effect, as the result of long-discussed legislation, by the railroads of the United States. The report goes fully into the arguments for and against such conformity, and sums up:

The movement is irresistible. Official and local boards, with which the authority may lie, should therefore take formal action in favor of it. Mills, banks, brokers’ boards and schools should announce their intention to

conform to it. Lawyers and insurance companies should prepare themselves to use the slight verbal precautions which will prevent litigation arising from any uncertainty during the first few days following the change. And individuals generally should adapt their plans to the new arrangements.

Merely to read the list of organizations to which President Walker belonged,* and of many of which he was an officer, is bewildering, so many and so varied are they found to be. Some of these memberships were, of course, perfunctory; but upon a large number out of this long catalogue he expended time, thought and serious labor.

In the case of those having to do with the Civil War, his service was fully compensated by the pleasure derived from meeting old comrades and discussing with them problems of military strategy. With other bodies, such as those dealing with economics and statistics, he worked as any progressive professional man must, if he is to keep in touch with the latest developments. With others as, for example, in the domain of education, he felt a double call: that of contributing actively to the reform of educational methods and ideals, and that of fostering among teachers, interest in the Institute of Technology. To still other undertakings, such as those dealing with parks, libraries, etc., he gave the service which he believed due from every intelligent citizen, and which he felt specially bound to perform in order to set an example to the young men under his charge. In many of the social and literary clubs to which he belonged, especially the Saturday Club, he found real relaxation, for he was eminently friendly, and keenly enjoyed informal converse with congenial men and women.

* See appendix, p. 413.

In too many instances, however, he yielded, as is the unhappy lot of men in his position, to the practically irresistible pressure of that horde of persons who are always on the trail of "lions," and who have a thousand good reasons why each particular lion should submit to be exhibited on each particular occasion. Unfortunately, the sum total of all these varied demands upon his time and vitality was more than any man could bear, especially when that man not only was carrying the immense executive burden of the Institute of Technology, but was all the time writing and lecturing, in order to add to an income quite inadequate to the scale of living which a college president in a large city must, for the sake of his institution, maintain. When urged not to work so hard and for so many causes, he would say, quite simply and convincingly: "But the work has to be done."

In this connection should be quoted two pathetic letters written by him to Mr. Shaw of the *Review of Reviews* only a few weeks before Walker's death:

Boston, December 10, 1896.

I dislike exceedingly to decline an invitation so flattering, and to miss an opportunity so promising to do my share in regard to public questions; but, unfortunately, it is not in my power to do anything at the present time. I can merely keep my work along and myself alive from day to day. I am literally overwhelmed with what I have on hand; I am not well; and neither callers nor correspondents have any mercy. I am very much obliged to you for asking me to take part in the coming symposium, and I wish I were in any sort of shape and condition to comply.

Boston, December 22, 1896.

. . . I should be glad sometime to write an article—but probably never shall—having for its title, "Killing a

Man," in which I should try to set forth the manners and ways in which decent and well-meaning people combine and conspire to knock down and trample on every man in the community who is fit to render any public service. I should try to show what an utter lack of conscience there is in this matter, so that men who would not on any account commit a petty larceny, will set upon a man whom they perfectly well know to be badly overworked, and knock out whatever little breath there may be left in his poor body; how they get "between him and his hole," cutting off his possible retreat by every sort of social entanglement; how they make last year's declination a reason for this year's acceptance; how they surround the poor victim on every side until he is fain to surrender and give up the last chance he has of getting a little rest or a little pleasure during the next two weeks, all for the purpose of delivering an address for some infernal society, which, perhaps, ought never to have existed, or at any rate, has long survived any excuse for its being.

I am very well aware that the foregoing is a triumph of mixed metaphor; but let it stand to express the condition into which a man is brought by the unceasing demands from every quarter to do work which, generally speaking, is not worth doing at all.

As far back as 1875, General Walker had taken part in founding, in connection with the Society of the Army of the Potomac, a Society of the Second Army Corps. On August 12th of that year, General W. G. Mitchell wrote to his old comrade, Walker, as follows:

I have recently been corresponding with Morgan . . . who states that a movement should be made now to have a history of the Corps written, while so many who took part in its operations are living and able and willing to give important information pertaining to such a work, and he mentions you as the one most capable and best qualified to write the history. . . .

Genl Hancock agrees with Morgan about the impor-

tance of the work and thinks too that it should be commenced soon, and also considers you to be the one specially fitted to execute it, and I can say that the General will place at your service for that purpose all the materials in his possession, such as Reports of battles and marches, letters, telegrams, orders &c &c, relating to the corps and its operations, and will render you such other aid as he can in collecting and compiling facts which would be valuable in this connection. . . .

I feel sure that you could make a brilliant and successful work, one that would be honorable to yourself and to the Corps and I hope you will determine to undertake it.

Walker agreed; but more than eleven years passed before he found time, amidst his multifarious duties, to complete a chronicle requiring such extended research, such careful weighing of contradictory evidence, such condensation of material, and such exercise of literary skill in order to convert what might have been the driest and most bemusing of records into what an unidentified newspaper clipping calls, very justly, "the most romantic, picturesque and stirring example of literature ever inspired by the campaigns of the Army of the Potomac." The following letter to Professor Alfred Marshall, which, for its intrinsic interest, is quoted in full, gives a vivid impression of what that book, notable from the standpoint both of good writing and of military acumen, cost its author. On November 29, 1886, President Walker writes:

In the course of another week my publishers, the Messrs. Scribner,* will send you a copy of my work on the History of the Second Army Corps, which has given me indescribable pains and suffering during the past three or four years, in the collection of materials amid vast heaps

* Peculiar circumstances made them the publishers of this book of Walker's.

of rubbish, or in determining with approximate accuracy the course of a thunderbolt on some summer's evening of 1862 or 3 or 4.

It is all done now, for weal or woe, the book has been ordered to press. Please let a copy stand on your shelves, if not out of interest in the fortunes of the body of troops whose history I have sought to narrate, then, in remembrance of me.

I sent you a week or two ago, or more, a copy of the 1st n^o. of the Harvard Quarterly Journal of Economics. The publisher will hereafter send the nos. to you, on issue, as I am desirous you should get the magazine, for our sake, not yours. I shall, also, send you, about Dec^r. 15, a copy of the new Scribner's Magazine, in which I have an article on Socialism. As I wrote Foxwell, it is not deep, but only seeks to draw certain lines on the surface which may help the "popular reader" of economic literature, to place himself, at any time, with reference to this make of government initiative and enterprise—"orient himself" would be the fashionable word.

I have been monstrously busy ever since my return from England, first, with my trip to California, and then, in finishing my book, but I have found time to think very often of my visit to Cambridge, and of your and Mrs. Marshall's great kindness to me.

My school year has opened, in every way, fortunately. Our annual Catalogue will be sent you next week, so that you may see how unlike an English University is a Yankee School of Technology.

This book has been a chief source, in earlier chapters, concerning Walker's experiences in the Civil War; but, as the New York *Sun* pertinently remarks in an extended review:

There is one officer who bore a distinguished part in the achievements of the Second Corps to which this book

does scant justice. We refer to General Walker himself.*

The comments of two of Walker's close friends are interesting; for the first was an economist, Professor Charles F. Dunbar, of Harvard, and the second was a military historian, Mr. John C. Ropes, of Boston. Writes Professor Dunbar, in the *Quarterly Journal of Economics* (July, 1897):

It afterwards fell to his lot, in his "History of the Second Army Corps" (1886) and his "Life of General Hancock" (1894), to write the narrative of events no small part of which had passed before his eyes. Little of his own history is to be found in those glowing pages; but every line bears witness to the intense enthusiasm with which he never failed to kindle when he recalled his army life, and to his devotion to the great captains under whom he served.

Mr. Ropes, writing, Jan. 10, 1887, in the *Boston Advertiser*, says, in part:

* That his labors were appreciated by his fellow-soldiers is shown by the following:

Resolved, That the thanks of this Society, be and they are hereby tendered, to *Gen. Francis A. Walker*, for the scrupulous fidelity with which he has performed the duty of writing "*The History of the Second Army Corps*," pursuant to its request.

Resolved, That the style, method of arrangement, fullness and accuracy of his History are worthy of the highest commendation; and that the Second Army Corps is fortunate not only in the generals who commanded it, the heroic soldiers who formed it, and its actual achievements, but also in having within its organization a soldier and scholar so notably fitted to suitably narrate its glorious deeds.

Resolved, That the Secretary of this Society is hereby requested to forward to Gen. Walker a copy of these resolutions properly attested.

The foregoing is a true copy of a resolution unanimously passed, at Saratoga, New York, on June 21st, 1887, by the Association of the Second Corps of the Army of the Potomac, at its annual meeting, which is now transmitted to Genl. Walker according to the direction contained therein.

FRANCIS C. BARLOW,
Secretary of the Society of the
Second Corps of the Army of the Potomac.

All through this narrative runs a well-marked strain of personal experience, vivifying the story, and adding a charm due to the writer's participation in the fortunes of the corps which nothing else could have supplied. At times the reader is reminded of Dana's "Two Years Before the Mast." Altogether, what with this delightful trait which is so noticeable throughout the book, and with the hearty loyalty to and reverence for his old corps and affection for his ancient comrades, which are equally characteristic features, we regard this work of General Walker's as not only one of the most valuable, but as the most interesting book that has appeared on the subject of our great Civil War.

Eight years after the History of the Second Army Corps, General Walker published, as one of the "Great Commander Series," a life of General Hancock which, to a degree, was an enlargement of certain portions of the "History." He had high admiration for this chief of his, many of whose characteristics were closely akin to his own, and had written a good deal concerning his campaigns. In the late fall of 1885, only a few months before Hancock's death, Walker visited Gettysburg with him and wrote enthusiastically of the privilege of hearing the story of the battle, from which Walker had been kept by his convalescence after Chancellorsville, from one of the chief actors therein. An interesting interview with General Walker, reported in the Boston *Transcript*, presents an affectionate but, on the whole, just estimate of his old leader, and contains the following personal incident of the anxious days in front of Petersburg:

When we went over the James River, before the explosion of the mine in 1864, our object was to make a feint which would draw the bulk of Lee's army over on the north bank of the James while the preparations for blowing up the mine and making a great assault on Petersburg were going on. . . .

As the time approached for Burnside to blow up his

mine, the orders were given for the Tenth Corps to be sent back and the largest of our divisions to be in readiness to follow up Burnside's assault, and to remain ourselves with the cavalry and hold the enemy there, keeping up the appearance of aggression, but at the same time, of course, stripping our lines to the very last point and putting ourselves in rather a critical position, because we had a deep river behind us and we had the mass of the Confederate army in front. Of course, therefore, everything depended upon care.

The cavalry were to recross to the south bank of the river, and leave their horses, every fourth man holding four horses, the other three of the four coming back with their carbines to help us hold the lines the next day. Of course, if the enemy had the slightest idea that we were sending troops back they would come down upon us with irresistible force. All the orders that were necessary were given, especially instructions not to allow any men to cross after daybreak. We muffled the pontoon bridges as well as possible, but could not prevent the noise and the jarring.

The most explicit orders were given—and we could have gone before a court-martial on those orders and proved that everything was done that should have been done, and every order was given that should have been given. But that was not the sort of thing to satisfy Gen. Hancock. We went to sleep, after having been marching and fighting for three nights and days without any rest, and just before morning I was wakened by hearing my name called. I went into Hancock's tent—I slept next to him—and he said he was afraid that the cavalry might continue crossing too late, might be subject to observation, and asked me if I would not ride over and see General Sheridan and say to him that if any cavalry had not crossed by that time they must stop on our side, and could not be allowed to cross.

I jumped on my orderly's horse and rode over to a clump of woods where Sheridan's headquarters were. As I approached, the first voice I heard was Sheridan's own. "Who is that?" I announced myself, and gave Hancock's message, and the reply was, "I was thinking the

same thing myself." "Forsythe," he said, turning to his Adjutant General, "go to the bridge and if General Kuntz's division has not crossed, tell him that he cannot cross, but to mass his cavalry behind the woods on the plain and remain during the day."

Forsythe and myself galloped to the bridge and there found the head of the column just entering the bridge, stopped it, turned it back, and had it massed behind the woods. In 15 or 20 minutes it was light enough for the enemy to see our movement. If they had seen the rear of that column crossing the bridge we should have had five-eighths at least of Lee's army upon us almost instantaneously. As it was, when the day broke, what they saw was the cavalry coming back, with their carbines over their shoulders, looking for all the world like honest infantry. They had heard this sound all night. They knew troops were crossing, but could not tell which way. They had been straining their eyes as the morning began to break to see what was going on, and they saw our people coming back. It seemed to them simply the rear of a column that had been crossing all night to reinforce us on the north bank, and it added immensely to the effect of the demonstration, as well as saved us from the consequences of an assault which we could hardly have borne.

Walker was a pall-bearer at General Hancock's funeral; in November of that year he gave an eloquent oration on the dead Commander, at Burlington, Vermont; in the following January, he refuted, in a letter to the *Century Magazine*, what he regarded as an aspersion, by an earlier writer therein, on Hancock's handling of the artillery on the third day of Gettysburg; and in February, 1891, he read a paper concerning him before the New York Commandery of the Loyal Legion. He seems, however, to have declined an invitation to deliver the oration at the dedication of the Hancock statue on Pennsylvania Avenue, Washington.

On May 2, 1883, General Walker was elected Commander of the Massachusetts Commandery of the Mili-

tary Order of the Loyal Legion of the United States, made up, as is well known, of commissioned officers who served in the Civil War. He held that office most acceptably for two years and continued in close relations with that body to the end. He was also, for years, President of the Military Historical Association.*

The greatest service, next to that of his writings, which Walker rendered to the science of economics was through his interest in and presidency of the American Economic Association.

Professor Richard T. Ely, who has served as both Secretary and President of the Association, prepared, in 1909, a short history of it, from which the following quotations are made:

A mimeograph circular containing the draft of a constitution was distributed widely among the economists who might be supposed to be in sympathy with it, generally among the younger group of economists; and it was proposed to gather at Saratoga in September 8-11, 1885, in connection with the American Historical Association (to which nearly all the economists belonged), in order to form our Association. The response to the invitation was general. . . .

The American Economic Association was born September 9, 1885. On September 10, the following officers were elected:

President, Francis A. Walker, LL.D.

Massachusetts Institute of Technology.

First Vice-President, Henry C. Adams, Ph.D.

University of Michigan and Cornell University.

Second Vice-President, Edmund J. James, Ph.D.

University of Pennsylvania.

Third Vice-President, John B. Clark, A.M.

Smith College.

Secretary, Richard T. Ely, Ph.D.

Johns Hopkins University.

* Writes Prof. James F. Rhodes: "He was an imposing figure as he presided over the meetings."

When I notified President Walker that he had been selected as President of our new Association, he wrote me a letter in which he gave expression to very warm feelings of gratitude on account of this recognition, and made it clear that his election had given him new hope and encouragement.

He told at still greater length what this signified for him at a dinner given to the Council members by Professor Seligman in New York in 1886. At my request Professor Seligman has very kindly written out his interesting recollections as follows:

“As to the remarks of President Walker at the dinner at my house, my recollection is pretty good. He stated that the formation of the Association was in his opinion an epoch-making event, and that before long the influence of the newer ideas in moulding American thought and statesmanship would be apparent. He desired, however, at that time especially to state how much the Association meant to him personally. He described to us in eloquent terms the sense of isolation that he had felt, the difficulties with which he had to cope, and the sense of depression that often overcame him in making, single-handed, the fight for what he called ‘the independence of economic thought.’ He referred to the scarcely veiled contempt on the part of the makers of public opinion of those days as especially galling; and he pointed out that their intolerance was comparable to that of the mediæval church. He felt that the combined influence of all these men was calculated to prevent any generous or independent thought on the part of younger men, and he welcomed the formation of the Association as making possible a combined protest against the older ideals and putting an end at once and for all to this policy of contemptuous silence or of scarcely less contemptuous allusion.

“He went on to speak very modestly about his own attainments and preparation. He said that many of the younger men then sitting round the table enjoyed advantages which he had been denied; that in especial they were thoroughly acquainted with the most recent advances of scholarship on the European Continent, whereas he had to work out his way laboriously on the foundation of

English economics. He predicted hence, that there would be a great renaissance of economic study in the United States, and he was proud to have been selected as the standard-bearer of the movement.

“This modesty on the part of Walker displayed itself on many occasions. I remember particularly the letter he sent me after the reading of my papers on ‘Progressive Taxation’ and on ‘The Shifting and Incidence of Taxation,’ which were afterwards published by the Association. He stated that one of his fondly cherished hopes had always been to write a treatise on taxation from a point of view quite different from that to be found in English works. ‘But,’ he added, ‘you are so very much better prepared for the task than I am that I am only too glad to relinquish my plan in your favor.’ I tried to urge him to reconsider his decision, and, as you know, I got him to write that very remarkable article on the Faculty Tax which appeared in the ‘Political Science Quarterly’ in the early ’90’s; but on the main proposition he remained inflexible, and, on the contrary, encouraged me to go on. The same modesty and readiness to help others was, in my opinion, one of the chief characteristics of President Walker’s.”

As indicative of the opinion of our chosen leader in these early days, the following quotation from the “Opening Address” of President Walker, delivered at our Third Annual Meeting, in Philadelphia, December, 1888, is noteworthy:

“Yet, while ‘Laissez-Faire’ was asserted, in great breadth, in England, the writers for reviews exaggerating the utterances of the professors in the universities, the doctrine was carefully qualified by some economists, and was held by none with such strictness as was given to it in the United States. Here it was not made the test of economic orthodoxy, merely. It was used to decide whether a man were an economist at all. I don’t think I exaggerate when I say that, among those who deemed themselves the guardians of the true faith, it was considered far better that a man should know nothing about economic literature, and have no interest whatever in the

subject, than that, with any amount of learning and any degree of honest purpose, he should have adopted views varying from the standard that was set up.

“Such intolerance was not necessarily due to bigotry. It was, the rather, involved in the very nature of the ‘Laissez-Faire’ doctrine. If that was true, there was no reason why an economist should have any professional communion or intercourse with an outsider. No good could come of it but only a possible weakening of faith on the part of disciples and a certain encouragement to heresy.”

As to the condition of affairs which at least some of us believed to exist, it may not be inappropriate to quote from a letter which President Walker wrote under date of April 30, 1884:

“Perhaps no one has had more occasion than myself to feel the need of such a moral support from fellow-workers in political economy as might come from formal association and concerted action. When I first started out in 1874, I suffered from an amount of supercilious patronage and toplofty criticism which was almost more than I could bear. Downright abuse would have been a luxury. . . .

“I have hit the Economic Harmonies pretty hard, I fancy, from the squirming; but all this is only destructive, and should but clear the way for serious, careful, productive work in economics.”

In 1892 the personnel of the Association was changed so far as the president and the secretary were concerned. It had always been felt that the presidency should be an honor office and that our president should be changed frequently in order to enable us to give recognition to those who deserved recognition. Very reluctantly President Walker had retained the presidency for seven years because it was felt that in the early days he could be of service in this office. In 1892 it was felt that the time had come for change.

The letter to Professor Seligman, referred to by him, follows:

Boston, June 28, 1894.

I thank you most heartily for your kind remembrance of me, in sending a copy of your admirable work on *Progressive Taxation*.

I followed all you wrote on finance with the deepest interest, especially because some fifteen years ago I cherished the ambition to cover the same ground, and to that end collected a vast amount of material, which I have now committed to the waste basket, or to numerous waste baskets. I was pleased to have the work better done by a younger man.

In a letter of July 1, 1887, Professor Richmond Mayo-Smith, of Columbia, writes to Walker, anent an article for the *American Journal of Political Science*:

Thank you very much for your kindness and friendly cordiality. Begging is a disagreeable business even for a scientific magazine, and God is not the only one who loveth a cheerful giver.

I meant in my last letter to have congratulated you on the skilful and wise way in which you managed the meeting of the economic association. It seems to me that the discordant elements were harmonized in the very best way possible and that the association is in a capital position for the future.

Professor J. H. Nicholson, of Edinburgh, writes recently:

It always seemed to me that Walker's writing was so clear and simple in expression and so much enlivened with graphic practical and historical illustrations that many people were inclined to regard him as a popular exponent rather than an original thinker in Economics. I know by my own personal experience and by that of my fellow-students that his work had a profound influence in modifying the so-called "classical" Political Economy especially on the fundamental questions of Money and Labour.

He was singularly modest in his claims. I remember once saying to him that I thought his treatment of a vexed question on the Premium on Gold the best I knew, when he answered: "Do you know I never seemed to myself quite clear on that subject."

The part of his work on Money that deals with inconvertible Paper ought to be studied by all the financial leaders of the present day. He was one of the most effective exponents of the inflationist fallacy in its varied forms.

His little book on *Land and its Rent* is a great example of the application of principles to practice on fundamental questions of property.

He happened to visit me once when there were serious labour disturbances in the United States and some destruction of property by the strikers. He said to me he had no fear whatever of any anarchist opinions gaining ground in the United States. Our people, he said, have too much respect for labour to destroy the fruits of labour. I do not think he would have had the least dread of any Bolshevik propagandism in the States.

In my opinion Francis Walker was a great economist and his greatness was partly shown by his simplicity. Certainly I have never met any economist who made so vivid an impression of power in getting to the root of the matter and I have the most pleasant recollection of his charming courtesy.

General Walker was a member, also, of the American Statistical Association (of which his father was a vice-president) and was its President from 1883 until his death. Besides being more or less active in other American organizations having to do with economic problems, he was an honorary member of the Cobden Club and of the Royal Statistical Society; corresponding member of the Central Statistical Committee of Brussels; and Associate of the Statistical Society of

Paris. In that connection the following excerpts from a letter of October 10, 1884, from the eminent economist, Emile Levasseur, is of interest:

J'ai attendu le fin des vacances pour vous faire part d'une résolution que la société de statistique de Paris a prise dans une de ses dernières séances et qu'elle m'a chargé de vous communiquer.

La société aura vingt-cinq ans d'existence au mois de juin prochain. Elle veut fêter cet anniversaire et, pour cela, tenir une réunion scientifique à laquelle ses membres prendront part; elle désirerait que des savants étrangers voulussent bien se joindre à eux en acceptant son invitation. . . .

Elle m'a chargé de vous demander:

1° Si vous pouviez vous rendre à son invitation pour les réunions de cet anniversaire qui auront lieu de 1^{er} au 7 juin, 1885.

2° Quels seraient les travaux publiés ou manuscrits que vous seriez disposé soit à lire, si vous venez, soit communiquer par intermédiaire, s'il ne vous est pas possible de venir à Paris.

CHAPTER XV

SCHOOL REFORMS

GENERAL WALKER early evinced his active interest in public education by serving most acceptably for more than three years on the Board of Education of New Haven and for four years—two of them overlapping his New Haven service—as a member of the Connecticut State Board of Education.

During the earlier service he sent to the *New Haven Register* a notable letter justifying the action of the School Board in discontinuing so-called religious exercises in the public schools. Taking up, first, the familiar argument that the community has no right to provide, through general taxation, rooms or buildings for religious exercises or to compel the attendance of pupils thereupon, he continues:

If anything needs to be said beyond this, to justify the action of the Board, there are a few considerations which may be indicated. First—we have and can have no religious test for teachers. Nor can any man gainsay this: that religious services by unreligious persons constitute an impropriety, if they be not actually blasphemous. Yet we have been accustomed to require religious exercises from teachers, some of them among the most useful and respected in the service, who nowhere else take part in such exercises. Such a requirement can only be justified on the plea that the exercises in question are a mere form. But if they are a mere form, why this ado about them? If they are supposed to be in the nature of worship, how can we defend the requirement of such a duty from persons making no religious profession.

But, again, there is a difficulty of discipline involved. As a rule, these exercises are, and must be, held in the several school-rooms, where a teacher is alone with her fifty pupils. If she really prays, if she takes both the physical and the spiritual attitude of devotion, her children will, more or less, take the occasion to play pranks and make sport. If, on the other hand, she peeps through her fingers or over her book and tries to catch the children in their mischief, what sort of an impression will she make upon their minds? Is it worth while to take so much trouble to teach a lesson of hypocrisy to the rising generation? I need not say that this district is not in a position to provide two hundred monitors to preserve order in as many school-rooms, while the teachers give mind and heart to their devotions; yet without monitors, I do not believe the President of Yale College would deem it discreet to undertake to conduct morning prayers, even before those admirably behaved young gentlemen at the chapel.

But again, can we disregard the differences of religious belief which exist in the community, and which render insistence upon any form of worship nothing less than religious persecution? What right have we to compel a Jewish child to go to the Eaton school under penalty of the Reform school, and then make him bow at the name of the Messiah? It cannot be justified except upon the ground that he has no right to be a Jew, a ground which has often been taken, to be sure, but which is repulsive to the ideas of the present age. What right have we to make thousands of Catholic children listen to the reading of the King James version, a version which their priests and bishops tell them is an unsanctified version, and fraught with danger to their immortal souls?

But, still again, can we as practical men overlook the danger to our common school system, which lies in religious prejudices which have been engendered against it, through the compulsion exercised by the state in this matter of school worship? During the past season the citizens of New Haven have enjoyed the presence of a distinguished English nonconformist minister, who is also prominent in the councils of the political party with which

nearly all Americans sympathize. Dr. Dale has, in so many words, told us that the success of free public education in England is bound up with the secularization of the schools. But for the demand of the Church to be allowed to "educate the heart" of the children, England might have had free schools immediately after the Napoleonic wars. That bigoted insistence has kept two generations of Englishmen in ignorance, and in the poverty, misery and vice which ignorance engenders.

Are we Americans unwise enough to throw away the substance in order to maintain a semblance; to endanger the permanent power and influence of our public school system by allowing race and religious animosities to be engendered against it, for the sake of what is generally an empty form, and is too often a mere farce? Can we consistently applaud the course of the dissenters in England, in striving to secularize the schools, while seeking here to maintain against the spirit of the age the religious authority of the public school teacher?

Scarcely had he gotten into harness at the Institute of Technology than he received a letter signed by Dr. Edward Everett Hale and seven other leading citizens of Boston, urging him to consent to the use of his name in the coming election for School Committee.

This was favorably answered as follows:

I do not covet any addition to my present duties; but the schools of the city and of the State have the first claim upon my time and strength, and if it were necessary for me to unload in any and every other direction in order to undertake a responsibility with which my fellow-citizens chose to intrust me regarding the public schools, I should not hesitate to do so.

Two days later, Dr. Hale wrote again:

Just as I left town, I received your note. It will give all the members of the committee great courage, and will do "no end of good."

Mr. Samuel Eliot also has consented to serve—and we shall not stop till we have elected eight of the very best.

Of course we know how many public cares are thrust upon you. We are all the more obliged,—and so will the public be,—for your acceptance of the nomination.

Walker's service on the Boston School Committee was neither perfunctory nor even acquiescent. He looked upon himself as a trustee for the public school children, bound to see that their interests as pupils and their parents' interests as taxpayers were fully protected. His own experience as a teacher, his long apprenticeship in public education in Connecticut, and his daily contact, through his own children, with the schools, qualified him to an extraordinary degree to think through (as he always did with any problem) this question of elementary and secondary education, and to find out for himself whether or not the work which the schools of Boston were doing was what a community so long established and so enlightened should demand.

Space is wanting to go into every phase of the reforms which President Walker initiated or took a leading part in bringing about; but those changes were many and far-reaching. The one which aroused at the time the greatest controversy was concerning the study of arithmetic. After making a careful study of existing conditions, so that he might be certain of his ground, he caused an order to be entered for the appointment of a special sub-committee to investigate this subject, and at one of the spring sessions of the whole committee, in 1887, made his well-known address on the teaching of arithmetic.

In this he condemned "home study," especially in connection with "problems," denounced most of those problems as being exercises in obscure logic rather than in the science of numbers, and advocated cutting

out a great part of what was then included in text-books, such as compound proportion, partial payments, outworn tables of mensuration, etc., and confining the study substantially to the four processes and to such fundamental things as fractions and proportion. A few months later he issued another paper,* from which the following is taken :

What then are the faults complained of ?

First—That the amount of time devoted to this study is in excess of what can fairly be allotted to it, in the face of the demands of other and equally important branches of study.

Secondly—That the study of arithmetic is very largely pursued by methods, supposed to conduce to general mental training, which, in a great degree, sacrifice that facility and accuracy in numerical computations so essential in the after-life of the pupil, whether as a student in the higher schools or as a bread-winner.

Thirdly—That, as arithmetic is taught in many—perhaps in most—schools, the possible advantages of this branch of study, even as a means of general mental training and of the development of the reasoning powers, are, whether by fault of the text-book or of the individual teacher or of the standards adopted for examination, largely sacrificed through making the exercises of undue difficulty and complexity, the exercises prescribed often reaching a degree of difficulty and complexity which not only destroys their disciplinary value but becomes a means of positive injury.

Concerning home lessons, he spoke with real feeling, for he was quick to resent injustice and he believed that some of his own children, whom he knew to be far above the median in mentality, were given tasks that were beyond their capacity, while being useless in themselves. He spoke for all fathers and mothers of Boston school-children, therefore, when he wrote :

* Both are reprinted in "Discussions in Education."

In the case of home lessons, however, an ambitious and sensitive child finds no relief. The work may go on long after the child should have been in bed, until a state is reached where further persistence is not only in the highest degree injurious but has no longer any possible relation to success. The boy or girl, hot, tired, overwrought, quivering with distress, could no more do "the sum" in such a condition than he or she could "put up" a hundred-pound dumb-bell. Yet the remonstrances of parents produce only fresh tears, and when at last authority is exerted and the child is driven to bed, utterly unfitted for that sound and refreshing sleep which should close every child's day, the task is still unperformed. Over and over and over again have I had to send my own children, in spite of their tears and remonstrances, to bed, long after the assigned task had ceased to have any educational value and had become the means of nervous exhaustion and agitation, highly prejudicial to body and mind; and I have no reason to doubt that such has been the experience of a large proportion of the parents whose children are habitually assigned home lessons in arithmetic.

Referring to this campaign and to General Walker's published reply to Dr. Peterson, a School Supervisor, Dr. Hale writes, September 14, 1887:

I am greatly obliged to you for your "reply." I hope you will give them no rest.

A child of mine, on coming home from a primary school examination,—told his success and his failure. "She asked me so and so—" he said,—“and I told her.”

"Then she asked me,—” thus and thus—

"I told her I could not guess that one.”

The boy thought they were all conundrums!

A little earlier, Professor J. W. Mallet, of the University of Virginia, had written:

Let me thank you for the real pleasure with which I have read your comments on the teaching of arithmetic, and on industrial education, both as related to the public

schools—the strong common sense of both papers ought to make a decided impression on those who have practical charge of such matters.—Your remarks on the misplaced teaching of a part of what should be known as logic, under the guise of tangled arithmetic problems, revives in my mind what has long been a hobby of mine—namely, that the true field, and a very important field, for training in elementary logic is to be found in a broader and more thoughtful mode of teaching the grammar of our own tongue.—I am perpetually being struck with the *muddiness* of expression of young men who have had what passes for a good school education, inevitably accompanied by like muddiness of thought.

Walker began this campaign for reform in the teaching of arithmetic while he was on the School Board in New Haven, and that he was persistent in it is shown by the following, written to Holt, December 15, 1884:

I rec^d your letter Sat'y noon and telegraphed you, at once, that there was no probability that I could be of the slightest use in such a literary enterprise. I might have said, no possibility.

I tried hard to induce Newcomb to make a series of progressive books in mathematics, progressing according to the difficulty of the subject, without regard to the distinctions between arithmetic, algebra, geometry, etc. But I couldn't make him budge. Have spoken to Wells, of our School, and others, but Ephraim (if that is the fellow) is wedded to his idols and I have had to let him alone.

As for me I have no competency to deal with the details of such a scheme, nor is such a book one to be readily *trumped up*, at short notice. If it is to work a revolution in teaching, it must be the result of long thinking and much experimental work.

In the fall of 1887 arose the question of Walker's again serving on the Boston School Committee. On November 1st, Dr. Hale wrote:

I am distressed this morning to hear that the women have been persecuting you,—and that you have intimated an unwillingness to fight with beasts on the School Board for three more years. Of course it is a horrid business. But, indeed, the whole thing goes to pieces without you. Pray do not block all effort to get a decent board,—by withdrawing your name. It is quite clear that you will be on all the Tickets, unless you withdraw—or can be chosen handsomely,—even if you were not.

I wish the women had had the sense to let you alone. But all things are not given to that sex. Pray let us use your name as a carrying staff, and use the fame which you certainly have on the Board three more years.

President Walker's duties at the Institute were so pressing and he was so weary of city politics, on the one hand, and of the misrepresentations of reactionaries, on the other, that he declined to be a candidate for a second term.

Possibly one reason for his refusal to stand was the fact that, rather ironically, he was undergoing special criticism, at that time, for two things not dissimilar from those against which he had been battling as champion for the children of the public schools. Charles Francis Adams—at that period president of the Union Pacific Railway—and others were making an onslaught upon the alleged incompetency in the matter of writing plain English of the graduates of the Institute of Technology; and the always rumbling growl against overwork, and especially excessive home work, of the students therein was just then particularly loud. Two of Mr. Adams' letters, which follow, are, as in all communications from that family, full of linguistic spice:

Sept. 14, 1886.

Last year several graduates of the School of Technology came to me recommended by you. I had occasion

recently to call for the record of one of them, Mr. ——. As a part of his record, I have received the following:

“Like so many of the graduates of our Colleges and Technical schools, he seems to have been deficient in his elementary English education. He writes a poor and careless hand. The lettering and general work on his maps show a want of neatness and care I do not like to see, as there is a lack of evidence of a desire to improve, and the world in these days is very exacting, so that if one does not constantly try to advance, it will not be satisfied.”

There is a great deal of significance in the above extract. The atrocious neglect of the elementary portions of an English education on the part of Harvard College and the School of Technology stands seriously in the way of the graduates of those institutions. It is very rarely that one of them can write at all. In fact, the disgraceful exhibitions that these young graduates make of themselves when it comes to clerical work is inconceivable.

I would suggest to you as a really very important element in the success of a young man in life that examination in handwriting be insisted upon. They seem to think it beneath them to write legibly. Some of the school-boy scrawls which have been sent up to me have been something which you would not believe unless you saw them.

October 27, 1886.

It is a necessary rule of the railroad, as of every other organized service, to hold the heads of departments responsible for all shortcomings. I by no means meant to imply in my previous letter that the business of your Institution was to teach young men how to write legibly, to spell correctly, and to use English intelligently. I agree entirely that they should come to you properly equipped on these points. Nevertheless, when they do not come to you so equipped, who is responsible therefor? I hold distinctly that you are responsible. It is for you to raise the standard, and you can do it very easily by declining to accept men who are not trained in the elements.

For you to accept men who cannot write English or any other language, so that it can be read, or speak their native tongue correctly, and press the men thus accepted, wholly untrained in the elements, forward in the higher branches, seems to me simply discreditable. Young men who present themselves in this shape should be sent back to where they belong,—the primaries. They never will improve until they are so sent back. The sooner you come to this conclusion, the better it will be for all of us.

In practical life, this is the uniform rule. If a young man offers himself for a position in a railroad company, who does not possess the first elements of usefulness in that position, we decline to receive him. I fail to see why you should not decline to receive him for the same reason in an Institution. By so doing, you would raise the standard immediately. Until you do so, the standard never will be raised.

Meanwhile, we only know the young men as turned out by you. To-day we find that they are not equipped properly in the very elements of education. You present them with your degree in their hands. Who is responsible? We, of course, cannot go behind the record. The record is your degree.

In this connection should be read the following extract from a formal communication from President Walker, shortly before his death, to the Department of English at the Institute:

The fact that this kind of work does not properly belong to the college at all constitutes no reason why, in the face of neglect by the lower schools, the college should not take it up, for the sake of otherwise good and successful scholars, who have the promise of professional and social usefulness. The Faculty of a school like our own cannot content themselves with saying that this pupil or that ought to have acquired his "English" before coming hither; and that they will not do anything to meet the lamentable fact that, in all matters concerning the arrangement and expression of his thoughts for writing or for speaking, he is as woeful a case of deformity,

obliquity, and perversion as ever was brought into the operating room of a hospital.

Little as that task is properly chargeable upon the teachers of an institution of such a grade, it is still true that many deserving young men who, as students of science and in technical work, are strong, clear-headed, and sensible, and who may confidently be relied upon to do excellent work in a scientific profession, will suffer deep and irreparable injury by reason of deficiencies and mistakes in expression and representation, unless they are helped in this matter. Not only will they fail to do justice to their scientific conceptions, to the results of their practical investigations, to the validity of their economic proposals, but they will be at a continual disadvantage in the view of their employers, and in the public mind, in comparison with men who, as thinkers or workers, may be miles below them.

It is true, and we have to accept the fact, that a monstrously disproportionate value is attached to certain matters of expression, as for example, spelling. A man may be learned, fertile in ideas, rich in imagery, even eloquent in speech, and yet a mistake in spelling will make him an object of ridicule by men who have not a hundredth part his accomplishments and acquirements. A man may not know three facts in human history, much less have an idea regarding any one of them, and yet not be as much at a disadvantage in consequence, as would a learned and able scholar and thinker who sometimes misspelled a word.

Now, it is not the business of the colleges to convert public opinion to a true relative appreciation of spelling in comparison with other gifts and accomplishments; but to accept the opinion and present view of society on that point, and, by such opportunities as they may have at command, endeavor to save otherwise promising pupils from a grave disadvantage, professional and social.

President Walker was almost unduly sensitive about the recurrent charges that students at the Institute were worked too hard. He several times dealt with this criticism in his annual reports as president, and

more than once he sent letters to the newspapers, usually in answer to editorials, maintaining that the fault was not with the courses of study or with the lessons assigned. It was due, he claimed, either to the fact—a matter of common knowledge with all teachers—that many young men and women have never been taught how to study, and consequently waste their time and energy; or to the too common practice among students of postponing their studying, for one reason and another, until they have a greater arrears than, even by the most frantic cramming, they can make up. The president contended, and had fact after fact and instance after instance, all gathered in his painstaking way from a wide range of undergraduate and graduate testimony, to prove that any youth of ordinary capacity and not dull in such fundamental subjects as mathematics and elementary science, can secure a degree at the Institute, provided he performs each day the tasks belonging to that day, and does not try to go forward until he is certain that he understands what has been taught him up to that point. He also established, to his own and his associates' satisfaction, that those daily tasks are not beyond a student's capacity to perform within reasonable limits of work, and that every facility for full understanding is available to those who really want to learn.

No one who was not close to Walker can appreciate, however, how keenly he felt those criticisms and how anxious he was not to be self-deceived in the refuting of them.

This attitude appears in a letter written Dec. 13, 1890, to Munroe:

Your letter in the Herald of Thursday was an admirable one. It is suggested that the author of the attack

is Mr. ——. It may not be so; but everything looks like it. If so, he has been guilty of a shameful wrong in dragging his personal grievances into a general discussion like this.

As I was about answering your letter two hours ago, Mr. Lawrence Rotch came in and after discussion it was agreed between us that he should see you. What is wanted now, is not arguments, but statements and testimony as to facts. I suggested to Mr. Rotch that a paper signed by a score or two of resident graduates, saying (1) that in their judgment the courses of the Institute are not more severe than is compatible with the health of the students, provided they maintain good habits of life and study (as you admirably explained in your letter); (2) that, in their observations, extended through many years, of Institute students, they have known very few whom they believe to have been broken down in health by overstudy; (3) that, knowing the reason for the success of the Institute to have been altogether in the thoroughness of its courses, they would earnestly deprecate any lowering of the standard of scholarship.

I suggested to Mr. Rotch that such a letter signed by a score or two of graduates would be very telling. . . .

Prof. Runkle has just sent a very stunning letter to the Herald.

The following, from a published letter written by Walker some years later, is to the point:

The Institute of Technology is not a place for boys to play, but for men to work. This is the point we start from. We expect those who come to us, asking for our degree, to take up the work of their lives then and there, definitely and seriously, and to labor thereafter as they will have to do in business, if they are to succeed. This is perhaps asking a great deal, but it is just what this school exists for. In maintaining a high standard of duty, we suffer a great disadvantage from the example set in so many preparatory schools and in so many colleges by

students who spend a large part of their time in idleness or sport, yet are allowed to graduate.

Such an example makes it doubly hard for us. Many young men, especially those who have been spoiled by parental indulgence, or by the weakness of their early teachers, think it very grievous to be obliged to apply themselves faithfully and diligently, day by day, month by month, year by year, to serious work. They think they should be allowed all the time for idleness or sport, which they have been accustomed to, as boys in school, and after a while they leave the Institute in disgust. And we are not sorry to part with them.

Still another large class of those who do not finish their course here comprises some of our best and most promising students, who go away, after two or three years, to enter directly upon professional practice. These are generally men who have found great difficulty in securing the pecuniary means of coming to the Institute at all. Finding that, with their present acquirements, they can secure employment in professional work, they give up the struggle for graduation and accept the first good position offered. Scores leave in this way every year. Such a result is greatly promoted by the fact that our students largely spend their long vacation of four months at professional work in shops or in the field. On one occasion I ascertained that 70 per cent. of the junior class had been so employed during the previous vacation.

So much for the weak presumption derived merely from the fact that large numbers leave the school before graduation. I do not believe that in one case in ten has ill health anything to do with it. I have in my possession a letter from the president of a class recently graduated from the Institute, written in reply to an inquiry on this subject, saying that, in his judgment, not a single man of his class left the school on account of ill health alone. In the case of two successive classes, I myself wrote personal letters to every graduate, asking him to give his most careful consideration to the question whether the work at the Institute was more than could properly be required, with due reference to all the interests of the students. In only three cases did the persons

replying admit that there was the least ground for complaint on this score. . . . I believe there is not a member of the existing faculty who would not rather see the Institute disbanded tomorrow, and its buildings delivered over to the city of Boston for a poorhouse, than commit the crime against scholarship and the treason to science which would be involved in conferring the degree of the Institute upon any man who had not thoroughly and well earned it. Other schools and colleges may, if they will, make the bachelor's degree a thing of no moment, a mere certificate of four or three years' residence, but the Institute of Technology was founded with no such purpose; it has altogether different work to do, and neither fear nor favor will cause us to lower our flag, whatever winds may blow.

Possibly a second reason why President Walker was unwilling to stand again for the Boston School Committee was because he was becoming every year more engrossed in the work of the Massachusetts State Board of Education, upon which he had accepted appointment, by the Governor, in 1882. He served more than eight years on that board and took keen interest in its problems, especially in those of the State normal schools, for the administration of which the board is directly responsible. While Walker, doubtless, was not altogether satisfied with the normal school method of meeting that most fundamental educational need: the providing of competent teachers, the system is deep-rooted in Massachusetts, which had been the pioneer in adopting it. With his customary good sense, he accepted established fact, and devoted his years as a member of the State board to the bringing to greater efficiency of this long-existent means of teacher-training.

One of the important questions with which he had to deal during his membership on the board was the

perennial one of the relation of the State educational officers to the parochial schools. The following editorial from the *Springfield Republican*, January 26, 1890, refers to this:

It is understood that the broad and wise position regarding the private school question taken by the state board of education in its annual report may be credited to the pen of Gen. Francis A. Walker, president of the Institute of Technology, who is now senior member of the board; but all members of the board cordially agree in the utterance. The nub of the recommendation made regarding parochial schools, the full passage having already appeared in our columns, lies in this paragraph:

“The movement to which we have referred, and which we frankly deprecate, is not to be met by restrictive legislation, but by a better feeling throughout the community, and especially by the improvement of the public schools themselves and the progressive enrichment of their courses of study. In these last ways private enterprise cannot long compete with the power and resources of the commonwealth; and in this way we may make sure that the cause of the state will win, as it ought.”

There were many other rather irksome problems to be dealt with in the normal schools, and, since the system covers the State, the work of supervision involved a good deal of travel. Walker disliked fussy details quite as much as he did traveling; yet he did even more than his share of every kind of work that came to hand, and greatly endeared himself to the school officials. When President Walker undertook a new responsibility, he never tried to weight the scales with his recognized prestige; but was always scrupulous to perform rather more than his fair proportion of the duties always waiting to be done. As the English would say, he never “put on side” because of his high

reputation. On the contrary, he took pains to rank himself with the humblest of his fellow-workers.

However, he expected those associated with him to take their responsibilities in the same serious and self-forgetting way as he, and was much disturbed at any failure of his colleagues to appear on time or to keep him exactly informed as to places and hours. He frequently maintained that, because of the dilatory habits of most persons, promptness, rather than procrastination, is the real "thief of time." This characteristic appears in the following two letters to Holt mainly concerning the Senate of Phi Beta Kappa, of which Walker was for many years a member:

April 24, 1884.

I shall be delighted to join you at the U. C. if I can. The "Senate" of the "Phi Beta Kappa" are to meet in N. Y. early in May, and I trust I shall be there, although no notification of the date has been rec^d. . . .

We go to Belmont this summer, to take the cottage once occupied by (and built for) Howells. We shall have a spare room and will be delighted to see you for a day, a week, a month.

May, 1884.

I did not intend to leave your kind invitation unanswered so long as this. The fault is ——'s. If you see him, I authorize you to kill him, for me.

He wrote me, the last of April, asking me what day between May 1 and 15 would be most convenient to me for a meeting of the Senate of the Phi Beta Kappa,—one of which I am whom.

I replied expressing myself as at his command. I have been waiting ever since, in expectation of a summons. If he ever writes me again, making such an inquiry, I shall tell him to go and be damned. I haven't felt, for the last fifteen days, as if I owned myself or

could make a dinner engagement, or do anything, in the face of that dread summons, which never came. If it is *this* to be a Senator! perish ambition and blast $\Phi \beta K$ (I believe that is right. You have undoubtedly issued a classical cyclopædia among your domestic, industrial and other cyclopædias and can correct this if wrong—There was a time when I really knew the Greek alphabet.)

So and thus it is that I did not write. Every mail was expected to bring a line from the delinquent which would enable me to say when I should be in New York. At present, I should say, no time.

P. S. If cyclopædias are a sore subject with you, I apologize for my little joke. At any rate, you can't say that I was ever editor of one.

CHAPTER XVI

A LEADER IN ECONOMICS

A MEMBERSHIP which gave General Walker special gratification was that in the National Academy of Sciences. He was invited to join the Academy in 1879, and was a vice-president from 1890 until his death. He rejoiced in this honor, not only for its own sake and for its companionship with many of the best minds of the Country; but because it gave the stamp of recognition and approval to that science, economics, which in those days was looked at somewhat askance by those who pursued what they were pleased to call the "exact" sciences.

He was exceedingly jealous that economics be given the fullest recognition,* and was scrupulous in insisting that it should observe the rules of scientific procedure and should rid itself of vagueness and empiricism. A large part of his effort in his chosen field was to persuade economists to get away from that bogey, the "economic man," and to deal with the world of men

* Witness the following, dated April 24, 1890, to Professor Richmond Mayo-Smith, on the latter's election to the National Academy:

"I am rejoiced that the Academy has thus distinctly recognized Economics & Statistics. There is an excellent economist in the Academy, tho' not under the name (Newcomb); while statistics find a fitting representative in Billings, tho' he appears as the repr. of scientific work in other departments.

"Election to the Academy is the highest Brevet which an American can look forward to; and I heartily congratulate you on having reached it at so early a stage in your professional career. I should like to speak to you, sometime, about some papers which I think you might advantageously present to the Academy within the next two or three years."

just as the follower of the "natural" sciences deals with the facts and conditions of the cosmos.

To that science of economics he continued to make notable contributions. Unfortunately he did not find time to produce any comprehensive treatise after "Land and its Rent" (in 1883), and the succeeding "Political Economy" and its children: the "Briefer Course," and the "First Lessons," until he published "International Bimetallism" in 1896. But he was continually revising his works and almost ceaselessly contributing important articles upon phases of economics to learned societies and to current magazines. The following letters bear on this economic writing. The earlier ones, covering rather a long space of time, but really belonging together, are to his publisher:

November 23, 1883.

The publication of "Land and its Rent," by Little, Brown & Co., was the result, in part of accident, in part of whim, and in part of serious design.

It probably would not have occurred—had I not chanced to fall into conversation about the lectures, with Brown. I have known the House long. Johnny Little and I were chums at school—34 years ago—and L. B. & Co. brought out my father's work.

Again, the fact that the lectures were delivered in Harvard made it seem appropriate enough that they should be set up in Cambridge and published from Boston.

So much for whim and accident. As for design I have always been disposed to think you were right in assuring me that my works are naturally confined to a small constituency; and that there is no use in trying to extend their circulation. You ought to be a much better judge than I, and I have taken it for granted that you were.

Still, at times I have had a sort of feeling that a different treatment might result in a wider circulation—which I desire even more for the sake of the reputation and influence involved than for the money. . . .

It seemed to me that the occasion of bringing out *Land and its Rent* afforded an opportunity to test the matter.—I presume the result will be the same as heretofore, in which case, I shall feel rather more of satisfaction, if not of complacency, than I have felt.—If on the other hand, the work should sell more largely, I shall feel both satisfaction and complacency in that result.

However, my writing days are over. I don't feel as if I should ever bring out another book.

February 8, 1886.

I thought you might be interested in the enclosed extract from a letter just rec'd. from Prof. Bastable of the University of Dublin and Galway.

It shows, I think, that although the P. E. books don't sell like *No Name Novels*, they are not without repute. Profs. Marshall, of Cambridge, and Nicholson, of Edinburgh, said nearly the same thing to me, last summer.

You forwarded to me recently a letter from the Macmillans. It was a notice from *Le Siècle*, Paris, heartily eulogistic of the *Briefer Course*, and expressing a desire that, notwithstanding the great number of works of high reputation in economics in the French language, this work of Mr. Walker's might be translated—etc. etc.

April 17, 1886.

You had better look out! I have a five-barreled revolver, *loaded*, for the first man who asks me to write anything. In this case, I will, for old friendship's sake, accept your apology, and spare your life.

No, Sir! You want a man like Higginson to write your juvenile treatise.

Were I to take a year or two, I could, perhaps, get up a book for the grammar schools on the rights and

duties of citizens, gov't., taxes, industry, etc., which would be worth publishing, but such a work would be harder for me than a folio.

January 1, 1890.

I send a *translation* of the paragraph which troubled you.

I can't afford a typewriter for my correspondence—at least until the book begins to bring me in about \$60 a month.

The reason for sending a book intended for High Schools to so many college men is, first, to secure the needed commendation, which will, I think, be freely and cordially given; but, secondly, and of even more importance, because the small book brings out more strongly and clearly than any preceding work the central doctrine of my theory of distribution: the *residual* nature of wages. I have "great expectations," arising from the better form of statement, that I shall receive many accessions of men who have not quite seen their way, before, to join me. This will help the whole series of works.

Now, what do you say to that? Have you any clerk who can pen a paragraph more deftly and clearly? Remember this when I am out of a job and apply to you for the position of corresponding clerk in the great house of H. H. & Co.

The following extracts are from the letter from Professor C. F. Bastable, mentioned in the communication of February 8, 1886:

Dublin, Ireland

29. 1. 1886.

I have derived the greatest benefit from your writings and make constant use of them in my lectures to my classes here and in Galway. The Wages Question is a standard book with all economists that I know of, so are the two works on Money. The smaller one is in the degree course for honours in Dublin University, the

Wages Question being prescribed for prizes. The Manual of Political Economy is used for the prize examination for our popular classes in Political Economy.

An idea which has often occurred to me is that of a *Quarterly Journal of Economics* something like the new English *Law Quarterly* edited by F. Pollock; if the *Journal des Économistes* can appear monthly I do not see why England and America could not keep up a quarterly magazine, and nothing would contribute more to the growth of the science.

In this connection the following, from Professor Foxwell of Cambridge University, is interesting:

Nov. 8, 1884.

. . . I wish you could reconsider your resolution to drop economics for the present. I don't know whether you quite realize the influence your books have had, and are still having, on English economic opinion. They are recommended by Cambridge men all over the country: and there is scarcely an institution, an examination, or a corner of the country, into which Cambridge influence does not penetrate.

I should particularly like for instance to see how you would treat protection (not merely in the matter of foreign trade, but generally) from the point of view of the interests of labour. The disorganization of modern industry and its precariousness are nothing short of a scandal. You don't (perhaps) feel it so much in the States, because your people are so shifty and resourceful: it is terribly felt in old countries; the patient dumb suffering of men unjustly deprived of employment alarms me. I say, unjustly, I mean from no moral or industrial fault of their own. Why should they starve by inches, and see their households broken up, and their children's and wives' health ruined as in Sunderland now? It is a disgrace to our modern society that such things should be possible. . . .

I don't know if you will have time to read these hasty lines. We are all so busy now. If they could have any influence in inducing you to continue your economic work, I should feel I had been justified in troubling you with them.

The following are from letters written in the early days of the *Political Science Quarterly* to its editor, Professor Richmond Mayo-Smith:

Boston, March 11, 1887.

I should greatly enjoy contributing to the Pol. Sc. Quar. and I see no reason to doubt that I shall be able to send you an article for the Septr. no. Earlier than this I should probably not be able to find time, among my present engagements.

The Quarterly has thus far been "a great success," and I hope its borders will enlarge and its usefulness increase continually.

Boston, June 25, 1887.

You frighten me to death! When I said September n^o. I was thinking of Aug. 15, as the fatal day.

I don't see how I could possibly get the article—subject, the Bases of Taxation, done by July 15. I have only just got through my Bethlehem engagement. Then there is a scrape at Chicago, July 14 or 15th,—after that!! Besides Holt is all the while invoking cerulean Curses on my Blasted head for not giving him copy in an entire revision of my Pol. Econ^y.

I am awfully sorry to disappoint you. The article is one I am particularly interested in, and I should be glad to appear in the Quarterly for Septr. (but I can't get ready by the middle of July). . . .

You'll have to put me off until Dece, won't you?

Boston, October 16, 1887.

I owe you the whole of my article on Taxation to-morrow morning and, as I can't give it, I soothe my conscience by mailing the first 2/3 of it, herewith. The remainder shall be in your hands on Thursday, which will perhaps—though that is none of my business—be as soon as the printer can deal with it.

During these years, General Walker's chief interest in what may be called current problems in economics was in the labor question, especially the growth of such class organizations as the Knights of Labor, and their propaganda; in the refutation of what he considered the heresies of Edward Bellamy, the socialist, and of Henry George, the apostle of the single tax; in the immigration problem as it affects living conditions in the United States and the birth rate of the original white stock; and in the relation of gold and silver in world exchange. As time went on, the last two overshadowed, for him, all other immediate economic problems.

One is greatly tempted to quote from his voluminous writings of that time, and it would serve a valuable purpose were many of his statements and arguments kept before the public through such a universal medium as the moving picture. During and since the World War, ephemeral literature has been flooded with all manner of economic fallacies, many of which are costing the world incalculably in money and well-being. Most, if not all, of them were refuted by economists at least a generation ago; and, because of his broad interests, his experience of affairs, and his rare powers of analysis, Walker's writings contain an unusual proportion of such refutations.

It must suffice, however, to record only a few pithy statements, referring the reader not only to his books published during his lifetime, but to the two volumes of "Discussions in Economics and Statistics," compiled by Professor Dewey shortly after General Walker's death. Under the main headings: Finance and Taxation; Money and Bimetallism; Economic Theory; Statistics; National Growth; and Social Economics, Professor Dewey has gathered, from manuscripts, maga-

zines and proceedings of learned societies, more than fifty articles not only deeply interesting in themselves, but presenting, so to speak, a picture of the development of General Walker's economic views.

The first quotation, from "The Restriction of Immigration,"* epitomizes his well-known opinions concerning "Pipe Line Immigration":

Fifty, even thirty, years ago, there was a rightful presumption regarding the average immigrant that he was among the most enterprising, thrifty, alert, adventurous, and courageous of the community from which he came. It required no small energy, prudence, forethought, and pains to conduct the inquiries relating to his migration, to accumulate the necessary means, and to find his way across the Atlantic. To-day the presumption is completely reversed. . . . It is now among the least thrifty and prosperous members of any European community that the emigration agent finds his best recruiting-ground. . . . The intended emigrants are looked after from the moment they are locked into the cars in their native village until they stretch themselves upon the floors of the buildings on Ellis Island in New York. Illustrations of the ease and facility with which this Pipe Line Immigration is now carried on might be given in profusion. So broad and smooth is the channel, there is no reason why every foul and stagnant pool of population in Europe, which no breath of intellectual or industrial life has stirred for ages, should not be decanted upon our soil. . . . The entrance into our political, social, and industrial life of such vast masses of peasantry, degraded below our utmost conceptions, is a matter which no intelligent patriot can look upon without the greatest apprehension and alarm. These people have no history behind them which is of a nature to give encouragement. They have none of the inherited instincts and tendencies which made it comparatively easy to deal with the immigration of the olden time. They are beaten men from beaten races; representing the worst failures in the strug-

* "Discussions in Economics and Statistics," p. 437.

gle for existence. Centuries are against them, as centuries were on the side of those who formerly came to us. . . .

Degraded labor in the slums of foreign cities may be prejudicial to intelligent, ambitious, self-respecting labor here; but it does not threaten half so much evil as does degraded labor in the garrets of our native cities.

The present situation is most menacing to our peace and political safety. In all the social and industrial disorders of this country since 1877, the foreign elements have proved themselves the ready tools of demagogues in defying the law, in destroying property, and in working violence. . . .

I believe it is time that we should take a rest, and give our social, political and industrial system some chance to recuperate. The problems which so sternly confront us to-day are serious enough, without being complicated and aggravated by the addition of some millions of Hungarians, Bohemians, Poles, south Italians, and Russian Jews.

The second quotation, from a manuscript lecture, on "The Laborer and his Employer," reflects that fundamental militant spirit in Walker which made him confident of the ultimate efficacy of a good, clean fight:

I do not wish to be understood to imply a lack of respect for the movement, initiated in London and more or less followed out in other cities, which may without offense be called Lagerbeerism. This is an exalted thing in its way—for the young men who take part in it. Nothing could be better—for them. . . . But towards the solution of the difficult questions at issue between the employing class and the great body of self-supporting, self-respecting laborers, it does not seem to me that Lagerbeerism offers any considerable help.

As to the other notion which prompts much of this talk about "the duties of capital," viz.—that employers, as such, are in some way especially bound to expend a part of their gains in charities and benefactions among the communities composed, in whole or in part, of their laborers, I must, again, express my inability to appre-

hend the justice or the social reason of such a requirement. Fully recognizing the duty which every man owes to the distressed and afflicted, and heartily believing that no selfish use which the rich man can make of his wealth will bring him a tittle as much pleasure as its expenditure in judicious benefactions, I am at a loss to see why a manufacturer who accumulates a fortune through giving employment to a thousand hard-handed and roughly clad laborers, is under any greater, or any other, social or moral obligation to expend a portion of his gains for their benefit, than is a banker or an East Indian merchant, who has made his money with the aid only of a dozen sleek and well groomed clerks, all wearing gold watch chains. . . .

It is idle to repine at the agitation, anxiety and turmoil which have been introduced into the industrial life of our day by the rising ambition and aspiration of the laboring class, their more resolute and self-assertive temper, their consciousness of power. It is idle to wish that workingmen were back again in the state of dull acquiescence, without content or without hope, which was characteristic of the age now past. The "Old Régime," can no more be restored in the sphere of industry than in that of government. The working classes will never have less, but always more and more, to say and to do regarding the remuneration of their labor and the conditions of their employment. . . .

The problem is one of education, of education in civics, in ethics, in economics; of education in the schools, through the press, through labor organizations, through political and industrial debates and struggles, through all the varied experiences of life. The prospect is not an agreeable one to those who chiefly value ease and peace. . . .

It is not peace, but a sword which the emancipation and enfranchisement of the working classes has brought among us. But ought we not to rejoice that the necessity is thus laid upon us, if we would save society itself, to see to it that the whole body of our citizenship is lifted to such a capability of prudent, temperate, conciliating action upon matters of vital concern, as is involved in the maintenance of industrial peace? . . . This matter of the

education of the whole people, first, in letters, in the elements of common knowledge, secondly, in civics, ethics and economics, has, most fortunately as I conceive it, now become a matter of pressing and instant concern, almost of life and death, to every modern state. . . .

I see nothing in the existing situation which should discourage anyone who genuinely believes in the essential manliness of men.

The third quotation is from an article in the *Atlantic Monthly* on "The Eight Hour Law Agitation":

Whatever may be said for an eight-hour day of labor (and I have conceded that not a little may be urged in favor of a reduction of the working day in many trades at least), the plea derived from its imagined effect in setting the unemployed at work is utterly fallacious. The failure of employment for a certain portion of the population is not found at all in the fact that those who are employed work as long as they do. The longer and the harder a man works, within the limits of his strength, the more work he makes for others; since with every stroke he is producing that which is to become a part of the means of employing other labor. The reason why, in ordinary seasons, there are many persons unemployed is found partly in the immobility of the laboring population, in the want of general and technical education, in vicious and improvident habits, or in the accidents of life and the general hardship of the human lot. In even greater part, the reason is found in the fluctuations of production and trade, due to the world-wide extension of the division of labor, and the consequent extreme localization and intensification of industry. This is the price which mankind have to pay for the enormous advantages of the extension of the principle of the division of labor.

The final quotation is from an article published in the *Century*:

At the beginning I warned the reader that I had no panacea to offer, no single, simple, sovereign cure for the woes and ills of humanity. We must strain out of the

blood of the race more of the taint inherited from a bad and vicious pool before we can eliminate poverty, much more pauperism, from our social life. The scientific treatment which is applied to physical disease must be extended to mental and moral disease, and a wholesome surgery and cautery must be enforced by the whole power of the State for the good of all. Popular education must be made more sensible, practical and useful. Yet still we shall have to wait with patience the slow, sure action of time, the all-healer. The balance of social forces has definitely turned to the side of the less fortunate classes, and the course of events now runs in their favor and no longer against them. Meanwhile, let philanthropy continue its noble work in alleviating the afflictions which cannot be wholly cured, and in binding together rich and poor in ties of sympathy and mutual regard.

The following letter, written presumably in 1887 (for the first leaf is missing), to Professor Alfred Marshall is peculiarly pertinent, in view of the subsequent history and present status of railroad regulation:

Our Congress has just taken a most momentous step, in passing the Inter State Railway bill—Everyone seems dazed at the tremendous possibilities opened up before our people by this monstrous innovation; and—yet, the need of something was so painfully felt as almost to paralyze opposition to this particular measure, although no one could say why this particular measure was better than any one of several possible measures; or, indeed, was able to explain at all satisfactorily, some of the provisions of the bill. The measure was passed, finally, in a sort of despair and abdication of statesmanship, qualified by a deep, instinctive belief that English good sense, supplemented by Yankee luck, will somehow bring us out right, as, so often before, in spite of our blundering.

And that is about what I expect. The bill contains a vicious principle; and I have no doubt that, after the

lawyers and the railway commission have dealt with it a year, it will be found to be both a bad piece of legislation—technically—and a clumsy administrative instrument; but, all the same, the rare compound I just named, English good sense and Yankee luck, will bring us out no worse and perhaps better for it. You English people can't understand what we mean by Yankee luck. In the first place, our margin is so immense, our recuperative energy so tremendous, that we can do any number of absurd things, yet come out fresh and smiling at the end. But this is not all. We believe that there is a Special Providence which presides over the United States of America, known only to our shores, our local divinity, which turns aside from us the logical consequences of our own follies and iniquities. Just as there seems to be a special providence for a drunken man.

Really and truly, our Yankee luck is nothing but English sense; which statement you may not think complimentary, after what I have just said. But it is complimentary, all the same. What I mean is that our people have a singular practical wisdom, which takes the sting out of misfortune; which makes a bad law a dead letter, almost from its enactment; which discounts the future, accepts the inevitable, and compromises with the coming evil; which charges off bad debts without a grimace, and, like the Chicago merchant after the great fire, spits upon the ruins, to see if it is yet cool enough to begin rebuilding. Our laws are not the whole of the statute book, but only those parts to which the needs of the people and the general concurrence of public opinion have given life. I admit that this is bad politics; but it gives mighty good practical results among a people of such general political training, so orderly and peaceful, with so much respect for property, as ours—Speaking now of our *own* people, not of the off-scourings of Europe.

Thus, though I am disposed to believe that this new Interstate Commerce Bill is about as bad as it could well have been made, I don't believe it will occasion any shock

or set any disastrous forces in operation. It will be tried, and, if found unsatisfactory in operation, will practically be suspended, by gen'l consent, until repealed or modified.

In 1885, Senator Leland Stanford of California was projecting his endowed university, and, as shown by the following letter, of earlier date than the last, to Mrs. Marshall from President Walker, he seems to have persuaded the latter to give him advice on the spot. The letter bears date, October 3, 1885:

Since I wrote you last, I have crossed the Atlantic Ocean once and the American Continent twice.

We had a pleasant, and, for the Red Star Line, a rapid, passage, on the Westernland, leaving Antwerp on the 1st of August, and "tying up to the wharf" in New York on the evening of the 11th, too late, however, to enable us to get away to Boston that night.

The prodigals were welcomed home. The Fairchilds consented to take Miss Sally back, and Mrs. Walker, after looking Lucy over, decided to receive her, just the same as if she hadn't been careering around over the face of Europe. The girls, on their part, were heartily glad to get home, while remaining glad that they went abroad.

As for me, there was no rest for my weary feet. An old engagement carried me off, on the 20th of Aug^t. to California. Fortunately, Mrs. Walker's curiosity about the other side of the country was sufficient to overcome her reluctance to travel in my company; and, fortunately, also, a maiden sister voluntarily undertook the martyrdom of managing our household in my wife's absence. So, we started for the Pacific, stopping a half day, only, at Denver, and a day at Salt Lake City. In California we were the guests of Governor Stanford, who has it in view to found a new university, on that coast, and wished to confer with me about it.

The Stanfords are immensely wealthy, and having lost

their only child, have turned their thoughts to applying what would have been *his* fortune to educational uses.

We stayed in California three weeks, going around somewhat, to see the unique agriculture and industry of that country, which is so unlike our own, or your own. When I left California two weeks ago, there had not been a drop of rain over the whole extent of the State for four or five months, and none was expected for weeks to come. Think of that, ye Britishers, who carry an umbrella if you are going around the corner, for half an hour.

We came directly "through" on our return trip, our longest stay being an hour and a half at Chicago. All our children were well and glad to see us; and after five or six days of paper hanging and painting, we are now happily settled in our places for the winter.

I do wish you and Prof. Marshall could come over the water this winter, and visit us and look over our big country. But if it is *the book* which stands in the way, I will not complain, for the book has rights superior even to those of the United States of America. I wish I could lend your husband a little of my superabundant vitality to enable him to do his work more at leisure and with more pleasure than his delicate health allows.

We look back—Sally and Lucy and I, to our visit in Cambridge, with the deepest pleasure. You were ever so kind to my girls, and I shall never fail to cherish a most grateful sense of it.

Recently, Professor Marshall has written:

I have a rather vivid memory of the day on which I called on him in Boston in 1875, I think.* I believe I had brought a note of introduction to him from President Eliot, so he knew what I was interested in. He sat still for a minute, saying "I wonder what I had better talk about." He must have known that he might talk for a week without getting to the end of what I wanted to know. But he was wont to be fond of parables, and he seemed

* It must have been at a later date.

to decide that the best thing he could do was to make me see how different fundamentally were American economic problems from British: either country might learn from the other, but the learning had to be re-distilled before it was fit for use on the other side of the herring-pond. At last he said, "I know what I'll do," and he fetched a book of photographs of Indians, gave it to me, talked about some of them, and his personal relations with them and filled my mind with them. I do not recollect the details of the conversation which followed, but in some way it led up to this: "British economics has a chief corner stone in Ricardo's theory of rent; in a sense that is universal, but the particular developments of it which are of most importance in an old country don't count for much in a land where the nominal owners of a hundred million acres or more are the people whose photographs you have just seen. . . .

To this letter of reminiscence, Mrs. Marshall appends:

I have a very vivid recollection of the visit which Professor Walker paid us in the summer of 1885, when he brought with him his daughter Lucy and her friend Miss Fairchild. He was the life of every party and he seemed to have a great power of enjoyment which infected those he was with and made him a most delightful guest.

On the visit to California referred to in the letter to Mrs. Marshall, Senator Stanford was most solicitous that General Walker should accept, at a salary several times what he was receiving at Boston, the presidency of the projected university. Although the Californian urged "seven excellent reasons," meaning the seven Walker children, for his coming to Palo-Alto, Walker not only realized that neither he nor his could be happy in an environment so different, but felt the necessity of carrying his work at the Institute much farther forward. He therefore promptly declined Senator Stanford's generous offer.

This was but another example of General Walker's intense loyalty to whatever he might undertake, and to those associated with him in such an enterprise. Loyalty to his Country was, as has been seen, a species of religion with him throughout the Civil War, and that loyalty never flagged to the end of his life, despite his experiences in Washington. Loyalty to his State was one of the major reasons for his coming to the Institute of Technology and for his refusal of many tempting offers such as that from the Leland Stanford University. Loyalty to the cities of New Haven and Boston permeated every act of his as a member of school boards, park commissions and many other civic organizations. And the greatest loyalty of all—excepting, of course, to the Nation—was to that Institute of Technology to which he gave every thought, every ounce of strength, and the fullest measure of unselfish devotion during the last fifteen years of his life, and for which, finally, he laid down life itself.

Moreover, whether in the army, in the census bureau, at the Institute, or in any one of the many other relations of his life, he was intensely and unswervingly loyal to his superiors, to his subordinates and to his colleagues. It is so rare, unfortunately, for a man to serve, with absolute fidelity, those to whom he owes allegiance; it is so much rarer for a man to stand behind, with comprehension and impartiality, those over whom he has authority, that, had Walker not been an outstanding figure in so many directions, this might well be called his most conspicuous trait.

Were the loyalty of every man to his associates and to their joint undertakings to be taken for granted, most of the ills of the world would pass away. Were all men imbued, as Walker was, with an intense, almost a fanatic, spirit of devotion to their enterprises and

to their fellow-workers, the millennium would be close at hand. As it is, this loyalty is so rare a thing as to make it one of the leading sources, if not indeed the chief foundation, of his remarkable and compelling power.

In the fall of 1884, Walker had confirmed himself as a "Mugwump" by voting for Grover Cleveland, thus alienating not a few of those old friends who found it difficult to soften the antagonisms of the Civil War. The following just estimate of the new President by his Attorney General, L. Q. C. Lamar, was written to General Walker in response to a letter of congratulation:

. . . Your words will be a solace and a strengthener in many an hour of discouragement and perplexity. I think I must read that part of your letter to the President that has reference to the manner in which he has conducted his administration of public affairs up to the present time. I have been much impressed, not only with the lofty character of his aims, but with his remarkable force and courage. He is quite self-possessed, and a natural President. I do not think that he will ever fall under the influence of any individual or combined influences of any kind. I am struck with his individuality of character and the utter self-obliviousness with which he moves forward to the performance of his duties. His relations with his cabinet and the different individuals of it are not unlike those of the first President, and I have strong confidence that, whether he is supported by his own party or not, he will turn over four years hence to his successor an administration that would meet the approbation of the first President, if he were living.

The following letter of Walker's is addressed, seemingly, to a journal devoted to forestry:

Boston, Jan. 31, 1885.

This matter is one not of local, but of national importance. In my judgment, the State of New York could

better afford, as a mere matter of physical prosperity, to let its great city be burned flat to the ground, from the Battery to the Harlem, than to let the Adirondack hills be stripped of their covering. If New York city were totally destroyed by fire to-day, its imperial mastery of American commerce would cause it to be rebuilt, fairer and larger than ever, within the space of ten years, as, indeed, Chicago has been after its great wreck. But no man can estimate the extent or the duration of the calamities that would spring from the destruction of these forests by the greed of lumber speculators.

The next two letters were written to Professor J. F. Colby, who had gone from Yale to Dartmouth College. The occasion was a convocation of Phi Beta Kappa:

Boston, June 16, 1887.

You are exceedingly kind to ask me to share your bachelor quarters on the occasion of my visit to Hanover—and I accept the invitation with anticipations of the liveliest pleasure, in renewing old associations and in finding out what you are doing and how you are getting on, at Dartmouth.

The trouble is, I don't know by what route or at what hour I shall arrive. I must be, on the 28th, at Amherst; and my plan is to find some train, or trains, going north in the afternoon or evening of the 28th, which will bring me, after more or less grief and pain, to White River Junction, in season to enable me to reach Dartmouth for the morning exercises.

Intervale, N. H., July 2, 1887.

We put up Thursday evening at Fabyan's, owing to the evil suggestions of a negro porter who wasn't sure that Crawford's had been opened for the season (the darkey probably gets a commission from Fabyan's).

As we passed through the Notch, yesterday afternoon, and I saw how much more interesting and beautiful Craw-

ford's was, I wished to take the first train back and kill the African, but refrained from the consideration that he was already well on his way back to New York, to beguile other travellers.

We arrived here at 3.15 p. m. in a temperature of 104!! I was ready, for one, to pack my trunks the next hour and start for the Isles of Shoals; but concluded that it would be scarcely kind or respectful to my family.

As we look back on our stay at Hanover, we appreciate more and more your kind hospitality, and the many agreeable introductions and incidents of our visit.

I am 47 to-day. By the time I get to be 48, I hope to have a pen with which I can form the ordinary English letters. This is only making Japanese characters.

The next letters are to Henry Holt:

Boston, July 30, 1887.

Henry, I nearly died in Chicago, attending the meeting of the Am. Eco. Assoc. I do not propose to be *finished* by attending the American Association for the Advancement of Science, in New York!!

in August,!!!

Not by a long shot!!!!

I am making progress on the Revision of the Big P. E. It will be a better book when I get through with it, even if I am not a better man.

Oct. 6, 1887.

I rejoice in the small girl. I wish I could indulge in the luxury of another small girl myself. Of all human institutions a girl baby is the best. Strange that it should have been hit upon so early in the history of the race!

Pray accept the warmest congratulations of Mrs. Walker and your humble.

Nearly ten years earlier, Mrs. Walker, writing from Paris to one of her sisters, said:

We go to look at every clean baby we see, pretty or ugly. I see F. coming on the double quick with "Oh, there is an awfully pretty baby up here, come and see it," and away we go.

Again, after attending a performance of opera, she wrote:

The prettiest thing we saw at the theatre last night was two little girls of perhaps 3 and 5, very simply but cunningly dressed. F. stepped out of our stall to get the air and found them promenading in one of the rooms, for which the accommodations are very ample and handsome abroad, and came back for me & we actually *tagged* them round at a modest distance until the curtain rose again. F. would keep saying "did you ever see anything so cunning? Aren't they too pretty for anything?"

He was devoted, of course, to his own children, and persons familiar with him only as the very dignified executive were amazed to find him, sometimes, if they happened to be brought into his sitting-room unannounced, gesticulating and singing as an operatic soloist to a delighted audience of boys and girls, or leading a group of them around the room in some uproarious game. He always maintained that the way to train children is to keep them surrounded by good and stimulating influences, and then to let them bring up themselves.

Unless very tired, he talked almost continuously at the family dinner-table on all kinds of subjects, and as if the children were adult listeners. He did not believe in "talking down" to youth, and he was so interested in what he was conversing about, and was so graphic in his speech and illustrations, that he made the driest topic fairly interesting to even his youngest listeners. His son Francis, who early found his inherited bent

towards political economy, reports that his father was very patient and liberal with him when, boylike, he differed from his elder's matured opinions. In this connection, the writer vividly remembers President Walker entering his office one morning in high glee, because Francis had come down to breakfast armed and determined to disprove one of his father's most cherished tenets in political economy, and a disputatious battle-royal had ensued.

General Walker took little interest in current fiction, but found great relaxation in the reading and re-reading of certain old-fashioned novels, such as those of Lever. He perused "Charles O'Malley" so often that it became a family joke. While he was usually careful and temperate in his considered writings, he rather enjoyed, as has appeared, to explode in the newspapers. In conversation, he was, like Roosevelt, often violent and sweeping, especially concerning politics. This frequently made him appear pessimistic when, as a matter of fact, his nature was one of rather extraordinary optimism.

CHAPTER XVII

CIVIC SERVICE

CONTRASTED with the first seven years of his presidency, those from 1887 to his untimely death were, as he calls 1888, "fortunate" years at the Institute of Technology. Within that period the number of students increased by more than fifty per cent., and, what was far more significant, the number of graduates nearly trebled. The resort to the School from foreign countries and from outside Massachusetts developed amazingly, while a continually larger proportion of the undergraduates of Technology came from other colleges. The financial situation was never, throughout Walker's administration, anything except one of great difficulty,* but the later half of that term of office was much less anxious than the earlier. Moreover, he could each year feel greater confidence that, eventually,—as proved to be the case in about twenty years after his death,—the Institute would be as rich as it is usual for any growing institution of learning to be.

* Eloquent testimony to this is offered in the following extract from a letter to a member of the Corporation of the Institute, written in one of the later years of General Walker's presidency:

"I do not wish to speak too strongly about the needs of the Institute; but I think you can truthfully say to Mr. — that those needs are very pressing and painful, at the present time.

"We are compelled to put up a building for the architectural department or else leave the students out on the sidewalk; while our means for current expenses are so inadequate that the Executive Committee have been obliged to consider the question of cutting off two departments of the school in which we are doing excellent work. It would break my heart to have to do this. If we can raise \$125,000 we can pay for our new building and carry our work on without interruption."

In that second period, too, the Commonwealth set its seal of approval upon the School by appropriating \$200,000 towards its support; the Faculty was greatly strengthened with exceptional men; new courses of study, such as that in chemical engineering, were established to meet the developing needs of industry; and that breadth of opportunity for the undergraduate, on the one hand, by providing for him a wider range in economics, English, history, etc., and, on the other, by encouraging him to enter fully, yet sanely, into extra-scholastic activities, was accepted and its growth assured.

President Walker's health seemed to grow more robust, despite his enormous and unceasing labors; his individual reputation as an economist, educator and leader in all good enterprises was steadily broadening; and his position in Boston during those last years was that of a leader to whom the city and the State instinctively turned for assistance and for advice in all matters of civic and social growth.

With those "seven lean years" safely behind, he began to save himself a little by ceasing to write most of his letters longhand (though he never could bring himself to send a typed "personal" letter without an apology), and by securing a real vacation during at least one or two of the summer months. At first he would go only to some nearby town, such as Belmont or Swampscott; then he ventured farther away, taking his household for a number of summers to Intervale, New Hampshire, a place of which he was very fond; and three or four times during those last ten years he went to Europe, sometimes on business of the Institute, sometimes to receive an honorary degree, and sometimes just for pure rest.

During one summer he went to Alaska, that being

about the only part of the United States which he had not before visited. He always took at least one of his family on those holiday trips; was usually accompanied by, or met on the way, other friends; and he never failed to come back filled with the enthusiasm usually associated with the initial foreign journey.

If he could manage it, he would visit some of the old cathedrals, for he had a passion for color. He would expatiate by the hour, on his return, over the radiant effects of ancient stained windows or of a sunset on the Alps. Never did he wax more eloquent, however, than over the colors in the Alaskan glaciers, where they come down to the sea and break off into icebergs, exhibiting, as he declared, the most perfect prismatic effects that he had ever seen.

As he once said, however, in a letter to Holt:

I always get bored by idleness and shall be glad to get home again and go to work.

Unfortunately, few of his letters of travel have been preserved. The following is dated at Rouen, June 14, 1892:

At 6:45 we left for Rouen and had a ride I can scarcely yet appreciate, so delightful it was, after seven years, to see a characteristic French landscape again, with châteaux and villas at intervals and the gardens and farms all the way. . . .

To-day we have had a fine time. We have been through the Cathedral and have spent hours, I might say, in front of it admiring its towers and the splendid façade, "gnawed by the tooth of time," the whiter portions seeming like frost-work on the darker ground of the general mass. We have visited the Palais de Justice, which is an admirable building of Francis I, the church of St. Maclou and the Hotel du Bourgthéroulde (a stunning thing of the 15th century) and lots of other places,



FRANCIS AMASA WALKER
President, Massachusetts Institute of Technology

besides driving up on the heights two miles away, whence we got a view of the whole city, with the Cathedral, St. Maclou and St. Ouen in superb relief above all the rest. But the delight of the day has been at the last named church. Anything more beautiful I never expect to see. The columns 120 feet high, of soft grey stone, as curiously mottled with white spaces as are my favorite beech trees, are simply delicious. I could not fail to find them more beautiful if I came to see them every day of my life.

So much sightseeing has made a hard day but I do not regret it. I am ashamed never to have seen Rouen before. To-morrow we go to Caen. . . . There again we shall have much of the noblest architecture of Normandy.

Two weeks later he wrote from Paris:

I shall stay here but three days longer, when I shall start for Dublin. Shall be glad to get on the other side of the Channel and hope to see some good cricket. The English papers are full of the matches; and it is evidently a good cricket year.

At Dublin I shall see lots of Americans, as well as distinguished people from other countries. I understand that they are going to give me a degree, and I have ordered my Doctor's gown from St. Andrews to take it in. I expect to wear it regularly on the streets when I get back to Boston!!

On July 31, 1892, he wrote to his son, living in St. Joseph, Missouri, where there had been labor riots:

St. Leonards-on-Sea,
July 31, 1892.

Am glad to learn that neither you nor Jessie was injured in the riots. . . . You don't say whether you saw the Battle, or not; but I conclude either that it occurred at a time when you were not "around" or that, like your venerable dad, your bump of caution sufficed to keep you out of range.

Do you remember the glimpse you & your mother & I had of Hastings & St. Leonards, fourteen years ago, as we passed along the South Coast, en route from Brighton to Dover? Well, that glimpse has ever since been in my mind's eye; & so, after your Aunt Emma & her party left me in London I came down to the south, here: & have been spending two or three delightful days on the shore. The air is soft & pleasant. The water view extends for miles on either hand, & while there is enough of life & movement to keep one from being bored, there is a great deal of quiet restfulness about the air & the scene.

I trust if Capt. Hunt has occasion to fire on rioters who are trying to burn property & murder non-union men, he will fire low, fire steady & keep firing. The thing we most need in our country is a terrible example to the rowdy, ruffianly elements.

To return to the first of the "fortunate" years, the following letter to Professor Alfred Marshall gives an interesting view of President Cleveland:

Jan. 20, 1888.

I trust the winter is passing pleasantly with you and Mrs. Marshall. I often think of you as coming down the Madingley Road, passing along the Backs, and crossing the little river into St. John's.

What a privilege it is to live amid such scenes! Boston is a very pretty city, growing both larger and handsomer day by day; but where are our Red Courts, or Perpendicular Church, or Round Chapel, or Combination Rooms, our delicious little bridge over a stream flowing through the town, under ancient arches, our libraries venerable at once and beautiful, our Backs, ah, our Backs? Echo answers, Where?

Our political pot is boiling furiously enough. President Cleveland has forced his party to take up the tariff question in earnest, instead of simply "resolving" about it; and the developments of the next few months are likely

to be most interesting to Americans; but not only this; they are likely to afford the subject of a capital study in politics. The political courage displayed by the President bids fair to have a political *force*, equal to many hundreds of thousands of votes. I am disposed to think that this element will be as potential in the case of Cleveland as it was in that of Gen. Jackson.

Political courage is not a virtue highly characteristic of democracies; and since the war took all earnestness out of our affairs, the politicians have been growing more and more doublefaced and time serving. The intrusion into the arena of a man of powerful will and resolute disposition, who is regardless of menace and who is only aroused to greater intensity of purpose by the resistance he encounters, has already produced a wonderful consternation and "scatteration" among the professionals, who have been carrying on our politics with about as little sincerity and honesty as did the hireling bands of the middle ages carry on their "pickwickian" wars in Italy. Of the latter fact what evidence could be more striking than Mr. Randall's return to Congress, year after year, by the votes of Republicans?

What will be the immediate parliamentary result, no one can foretell; but I believe that when the responses shall come back from 'way out in Minnesota and 'way down in Texas, as well as from the nearer and older parts of the country, it will be found that the President's directness, fearlessness and single-mindedness have produced a powerful impression, altogether irrespective of the political merits of his position.

The greater part of the summer of 1888 was spent at Intervale. From there he wrote, July 3rd, to Professor Mayo-Smith:

Where are you to spend the summer? I wish you could come up here and spend a few days with me in July, August or September. You, and Mrs. Smith, too,

if she could possibly leave the children for a run into the mts. We have a little cottage looking out on Mt. Moat and looking *back* on Mt. Kearsarge, with Washington on our right.

I think we could have some good talks; and the boys could play tennis with you. *I* am too old and fat.

A second letter to Professor Mayo-Smith was written from Boston, on August 20th of that year:

It would afford me very great pleasure to visit you and your charming family at Easthampton, this summer, but my "days are numbered" already. On the 24th Mrs. W. and I, in fulfillment of a long standing engagement, go to Campobello, and on my return I shall find an unbroken succession of engagements, personal or official, until the opening of the school year. Thus far the summer has been very pleasant and quiet—pleasant because quiet. I have done literally nothing except read over old novels, and watch lawn tennis, with an occasional (long) ride or (short) walk.

I did, indeed, write an article for the New Princeton (confound them!!) by reason of a twist put upon me from some inadvertent half promise to give an article for Sept.,—meaning to give it in Sept. while the Edr. interpreted it to mean, to give it in July for the Sept. no.—but that I did with such rage and revilings as would have made the Editor, if at all superstitious, very unwilling to accept the article, had he known my frame of mind. With this exception I have done nothing; not even one mss. page for my Elementary Course which I promised Holt I would finish this summer.

You shall be heartily welcome to my art. on Savings Banks when I write it; but I don't dare to set a date.

In the preceding January he had written to Mrs. Mayo-Smith, referring to a meeting of the Economic Association which he had been attending during the Christmas holidays:

My protracted "Spree" of four days, in New York and en route, has brought upon me such an access of business, of an imperative nature, that this is the first moment when I have been allowed to take up my pen to tell you how bright and charming a picture your home presents to my memory, and how deeply I feel the kindness I received from yourself and your good husband.

I came upon the B & A road on Saturday, with no economists, alas! but with Biologists, physiologists and bugologists by the score, from the New York and New Haven meetings; while a "confusion of tongues" due to the philological conference at Philadelphia made the train seem a new Babel. I thought as I passed South Norwalk of the ditching of that great body of doctors, returning from a medical convention, thirty years ago; and wondered whether the temptation presented by the returning delegates of four different conferences might not prove irresistible.

Mrs. Walker's menagerie was found intact and of undiminished numbers, on my return. We had not burned down, as she had apparently anticipated, and the roar of animals is still going on within the walls. I looked out with a personal interest upon the charred walls of the Barnum combination, as we passed Bridgeport, and thought of my own Circus at home.

Later in January, he sent the two following letters to Mayo-Smith:

Jan. 20, 1888.

Mrs. Walker and I expect you at our house next week, when you come on to read your paper before the Statistical Assoc'n. . . .

On the day following, Saturday, at 2 p. m. occurs the dinner of the Club of which Dr. Holmes is Pres^t., James Russell Lowell and all the "lights of Boston" are members. I wish you to go there with me. Dining in the afternoon is beastly business; but you will meet some notable men.

That evening, the 28th still, if you please, occurs a reception given by the St. Botolph Club to John S. Sargent, the brilliant young portrait painter, when an exhibition will be made of Sargent's pictures. This, also, you must attend.

Sunday morning you will go with Mrs. Walker, if you like, to Trinity and hear Phillips Brooks preach.

Jan. 23, 1888.

The lateness of your arrival constitutes no reason why you should not come directly to us. The Hotel Walker will be open, at that hour, and the proprietor and proprietress will be sitting up, cheating each other at cards.

I rejoice that you are to stay over to the things occurring on Saturday, which promise to be very pleasant.

(Postscript:) Should it be really storming, your best plan will be to go into the R.R. station, in the heart of the city and be driven up. Should it be a fairly decent night, and you have a bag which you can "handle," get off at Huntington Ave., go up the stairway beside the bridge and there you will find a carriage waiting for you, the driver of which will respond to the magic name of Prof. Smith, and will bring you, in three minutes, to my house.*

In December, 1888, he gave, upon invitation from the City of Boston, a eulogy at the memorial service for General Sheridan, then recently deceased. One passage has special significance in connection with the World War, where the steady and indispensable service of the United States regular officers in France has been pushed into the background by popular enthusiasm over the drafted "boys," made into temporary officers at the training camps:

* Practically throughout his presidency of the Institute, he lived at 237 Beacon Street, Boston.

Perhaps in nothing does popular opinion regarding the war commit a greater injustice than in attributing a superior patriotism to the volunteer. . . .

The ordinary citizen of Massachusetts, of Pennsylvania, of Michigan encountered the government of the United States literally at the door of the post-office only. Beyond this, the great mass of the people had no transactions with the nation. . . . But the young Cadet at West Point was deeply instructed as a student in his duties to his native land. Every morning, he saw the flag of the United States run up the staff, amid the discharge of artillery, and at nightfall he heard it saluted as it fell. Under that flag he performed his mimic evolutions day by day, and all his life was lived in the name of his country. . . . How idle, then, to assume that the graduate of West Point was less imbued and instinct with patriotic sentiment than the graduate of Harvard or Yale.

The studies made in preparation for this oration over a gallant Irishman led, indirectly, to rather an amusing incident which, although it took place nearly four years later, may properly be noted here. In the summer of 1892, President Walker was given an honorary degree at Trinity College, Dublin, an institution which, from the Sinn Fein point of view, is, to say the least, conservative.

Called upon unexpectedly to address the students, the distinguished American gave an eloquent eulogy of the deeds, both military and civic, of the Irish in the United States. A correspondent in Dublin, with the significant name of Larkin, sent a somewhat lurid account of the occasion to a Boston newspaper, in which its political significance was made the most of. The last paragraph of his letter is typical:

To say that the bigwigs of the university were amazed at Gen. Walker's eulogy on Irish valor in connection with Gen. Meagher, and his reference to green flags, is to fall far short of the truth. Some of them looked actually

dazed while others showed quite plainly that they did not relish the general's reminiscences. But the young students, many of whom are scions of tory houses, cheered enthusiastically again and again. Apropos of green flags there is not one inch of green bunting in or upon Trinity College while all others are in abundance.

This was too good a cue not to be seized by the Irish of Boston. On General Walker's return, they tendered him an enthusiastic reception at Tremont Temple, followed by a banquet. That the recipient of all this attention was rather bewildered appears from the following extracts from his speech of acknowledgment:

When this reception was tendered me by the veterans of the 9th and 28th Massachusetts regiments, I confess I did not feel myself entitled to the honor, either generally or by virtue of the particular act to which you, sir, have so kindly and gracefully referred. That act was, in itself, a thing perfectly simple and natural, requiring no acknowledgment, deserving no thanks; nor was there anything in the circumstances under which it was performed which made it, to my mind, in any degree noteworthy or extraordinary. . . .

Called upon unexpectedly—unexpectedly, because the invitation duly despatched to me at my home in Boston, reached me in Europe only after the event—to address the students of the college on the last day of the celebration, at a so-called function somewhat less formal than those which had preceded, no theme suggested itself to me as more likely to interest a body of generous youth than the achievements of millions of their countrymen in a new and distant land where circumstances at once made peculiar demands upon them for the display of courage, energy and enterprise, and afforded especially rich rewards to the exercise of all the social and industrial virtues. "Upon this hint I spake" trusting confidently, and as the event proved with reason, in the patriotic enthusiasm of my audience to bear out my lame and halting words.

The Sheridan address was followed almost immediately by his presidential address for that year at the meeting of the American Economic Association. Regarding this, Walker writes to Mayo-Smith, the day after Christmas:

I am in a scrape—this is confidential. I have had within the past five weeks (I might say four) to prepare my annual report as President of the M. I. T. making 40 printed pages, and involving much labor, and also to prepare a Eulogy on Sheridan, for the city of Boston, which covered a long life, very full of incident, so that my paper involved a great deal of work, as you may imagine.

The result is that I have had neither time nor thought to put into my address for the A. E. A. I should not have been caught so; but I determined, two months ago, to make my address a dispassionate, unpartisan treatment of the que. of Protection. Recent events and reflection have changed this purpose; and, in consequence, I have had suddenly to turn my utterly wearied brain upon a new theme and to cook up something in a few hurried days.

I want you to help me. I may send something down to you Monday night, so that you will get it Tuesday, and ask you to look it over and give me the benefit of any suggestion, any illustration, that may occur to you, or, even merely the benefit of your judgment in cutting out anything that is likely to be taken as offensive or extravagant, or otherwise objectionable.

I may not even get my poor paper done in season for this; and so may appeal to you on the cars. My address cannot, under the circumstances, be a success. I am anxious, for the sake of the Association, that it should not be too dismal a failure.

The theme is—the present movement of economic thought, especially in the U. S.

Of "poor papers," like this, Col. Carroll D. Wright says: *

It was very natural, when the professors of political economy and others organized the American Economic Association, that General Walker should be chosen as its leader. . . . He was continued as its President from 1885 to 1892. His counsel in guiding the course of the Association in its formative period, his addresses at the opening of each recurring session, and his reputation at home and abroad, did more to give the Association its great impetus and to establish its right to exist than any other single influence.

His work, his doctrines, his public positions growing out of them, contribute to make him the foremost figure among the political economists of America.

Walker's own belief in the value of the Association was expressed, two years later, in a letter to Professor Marshall, congratulating him on the formation of a similar organization in England:

I have followed with the deepest pleasure all the steps which have been taken in getting the British Economic Association fairly on its way.

Long life and great prosperity to it!

Your circular and the proceedings at the public meeting were of great interest to all our people. We feel that we have gotten so much good out of our own league, with all its faults and mistakes, that we rejoice to see the British economists, with their vastly larger opportunities, coming together for the same purpose.

Our Association held its fourth general meeting in Washington, Dec. 26-30. It was a decided success. Members came to us from all over our vast country; and some of the papers presented were exceedingly good. We never felt so strong and hopeful as now.

* *Amer. Statistical Association Quarterly*, June, 1897, p. 260.

That the path of presidency over an association of forceful men is not always smooth is indicated in the following extracts from letters to Professor Seligman. The last three refer, evidently, to differences of opinion as to the wisdom of holding a meeting at Chautauqua:

Boston, Apr. 25th.

I freely agree with you that it is highly desirable to bring into the Association all classes of American economists or at least to give no one a valid excuse for remaining outside.

The *a priori* economists will never again be numerous enough to dominate any catholic association in this country or any other. Perhaps some of them may, on that account stay out; but we should certainly not give them any good and creditable reason for so doing.

I believe the real stumbling block to be our declaration of principles. It should never have been adopted: it should be repealed at the coming meeting. Some persons regard the principles announced as objectionable and dangerous in themselves.

Others say that they deem any declaration of views, in an association founded for the promotion of research, to be either useless or an actual hindrance to enquiry. Still others, make our declaration of principles an excuse for staying out of the Association to which their real objection is that they could not hope to control it. . . .

If my stepping down from the Presidency would promote harmony and extend the usefulness of the Association I shall cheerfully yield to any one who may be named.

Boston, December 10, 1891.

I ought to have answered your letter of the 8th yesterday; but I had my annual report, as President of the Institute, to complete and to present to my Corporation. I certainly desired to have a meeting of the Association this winter, presumably in the Christmas holidays,—

although I did not enjoy the prospect of the additional labor thereby devolving upon myself, being already rather heavily weighted. . . .

I have, however, no personal considerations which would move me in the slightest degree from the course most conducive to the good of the Association. I will gladly go to Washington, Chautauqua, Nashville or San Antonio, as shall be deemed best. . . .

Dec. 16, 1891.

I thank you with all my heart for your kind letter.

Probably if I knew more about Chautauqua, I should have the same opinion of it which you and Giddings have.

Anyway, the matter of the time and place of meeting will be left to the Committee which *must* be called together this winter for the full consideration of the subject.

Dec. 23/91.

I fear nothing can be done. I am down with the Grip; and, while I am getting on as well as could be expected, my physician warns me against travelling at an early date, on account of the danger of pneumonia or bronchitis supervening. . . .

Altogether, it appears to me that we shall lose more by making the issue now than by suffering whatever disadvantage may attend a Chautauqua meeting. . . .

We have got on wonderfully well—so far: and our harmony has been a signal discomforture to those who have asserted that a body of Pol. Economists cannot work together. . . .

Please to understand that I take my full share of blame for assenting to the first suggestion. I saw no harm in date or place, & personally have no objection now.

Difficult as Walker found it to be satisfied with the finish of his phraseology, frequently rewriting and writing again in his quick, scratchy way—for he always

bore down so hard on the paper that he seemed to be using remarkably noisy and spluttering pens,—and greatly as he always dreaded, even after years of experience, every appearance on a platform, he was in continuously greater demand as a speaker. He was particularly successful in the difficult art of eulogy. He chose, of course, the language of praise, but tempered it with sound, keen judgments, and rose, at appropriate intervals, to heights of genuine oratory. In August, 1889, he gave before the Veterans' Association of New Hampshire an address on "The Country That Was Saved," in which is the following remarkable prophecy:

For one, I believe that, as the first great impulse towards a complete nationality came from the West, where men from all the "Old Thirteen" had gone to meet and mingle in communities that had, as yet, no history of their own; where the pride of statehood could, at first, have little force; where, to the pioneer, the nation was all in all, and there was naught to counteract the sentiment of unity, causing thus the fire of Americanism which had burned but slowly within the barriers of prescription and tradition to blaze forth with intensest heat. So I believe that the second great impulse towards a complete and vital, an active and vivid nationality is to come from the regenerated South; and that it will the rather be *our* future task to stand upon the old metes and bounds of the constitution, and to assert the reserved rights of the states against encroaching and centralizing tendencies.

In this connection belong the following quotations. The first is from a letter addressed to Mr. Horace E. Scudder, then editor of the *Atlantic Monthly*:

I don't see why you should not print the article. . . . There are Southerners who resent any criticism of Lee's movements, just as there are Northerners who re-

gard it as a sort of blasphemy, to say that Grant should have pushed on to Parker's store, May 4, instead of stopping at the Wilderness Tavern; but you are not bound greatly to consider such irrational animals, in the editorship of a living Magazine.

Some of Mr. ——'s criticisms are not new to the Northern soldiers, tho' they may be to his own people. I have not taken the trouble to verify the details and incidents of his narrative of the Seven Days' battles; but I recognize the general movement as justly described; and I think that what he says of Mechanicsville and of Malvern Hill is beyond challenge except by those who regard Gen. Lee as the Vicegerent of God on earth for the confusion of the Yankees. Viewing Lee simply as a man—(a very brave and good one) his allowing A. P. Hill to attack at Beaver Dam Creek on the 26th of June, and his sending his columns against the positions of Couch and Morrell on the 1st of July, were costly, bloody blunders, for which the Confederate Commander should have been made to do penance.

The second is from a newspaper account of a speech made by General Walker in Richmond, Virginia:

Since the close of the war the Southerners have undergone a most marked and welcome change of feeling, and, as they were then the bitterest foes of the Union, so they are now its most ardent and enthusiastic supporters. To the South must we look, rather than the North, for our great patriots.

The third is from a letter written on April 25, 1889, to Professor Raphael Pumpelly, concerning that very journey to Richmond, following a meeting of the National Academy at Washington:

I came to a full stop at 11 o'clock last night, for the first time in ten days. All the rest of the time, I have been rushing around, except when asleep or actually engaged in mastication. Lucy and I reached Richmond safely

and comfortably, in season for a late dinner or an early supper. One thing we learned at the Exchange Hotel, which I am going to divulge for the benefit of other Northern travelers; and this is, that a boiled egg is the only thing which a Southern cook can't *fry*: so we went in for boiled eggs, so long as we stayed in Richmond.

Sunday morning, Lucy and I went to St. Paul's, where my daughter was exceedingly interested in studying the Southern type of man and of woman. For me, my thoughts were less philosophical: I was thinking how many of these grey-haired gentlemen, looking so dignified and placid, were opposite to us at Fair Oaks, one pleasant Sunday morning, twenty-seven years before?—So, having filled myself up with recollections, I could do no less than take a seventeen mile drive, that afternoon, in order to spend half an hour on the battlefield. We had a glorious day for the drive and closed our Richmond stay very pleasantly. The next morning we had some more eggs boiled, and started down the peninsula for Fort Monroe. . . .

Monday evening, we went up by the Bay Line Steamer to Baltimore, whence Lucy determined to set out for St. Joseph, which she actually did, at 2 o'clock of Tuesday, leaving her poor old father alone in that strange city, without friends. Fortunately, I was able to make my way home to Boston, without filial guidance, reaching the hub at 11 o'clock, to find the children and their mother all well, while a telegram, half an hour later, announced that Lucy had joined her brother in Chicago.

We enjoyed our wanderings very much; but we enjoyed our homelike stay with you much more. . . .

Dear Pumpelly, you were awfully kind to us in Washington, and I had a delightful, if busy, time. I shall always look back on the Academy meeting of 1889 with pleasure.

In June, 1889, he gave a notable Phi Beta Kappa address, at Brown University, on "The Growth of the

Nation." In this he pointed out the significant fact that our agriculture, in contradistinction to that of Europe, has never bred a "peasantry," and called attention, as he thereafter increasingly continued to do, to the danger of admitting to a nation, so fortunately built up, great hordes of peasants from the most down-trodden European regions.

On July 4th, of the following year, he delivered at Portland, Maine, before the Society of the Army of the Potomac, an oration on the "Grand Review of 1865" of Union troops. It received the highest praise; and the "Grand Army Record" but echoed the general voice when it said:

For a full hour and a half did this accomplished scholar stand before his auditors and without a single reference to his notes and scarcely tripping on a syllable, marshalled his stirring imagery of the last grand review at Washington in a manner which held the closest attention and unflagging interest of his audience to the close. . . . The ready manner in which the scholarly general recited by number the regiments from each State represented in the various divisions showed a familiarity with the constituent parts of the old army and its history which we candidly believe cannot be equalled by any other living veteran.

Referring to the obligations of that summer, he wrote to his eldest son, on May 18, 1890:

I sent you two pictures of my precious self, the other day, as the brothers & sisters said you would want them. I call them rather good, the first for many years. The fact is, the ordinary photographer is a *cad*, who has no more eye for expression & true attitude than if he were a blind man. He would not know the difference between a \$5 chromo and the Dresden Madonna, or if he did, he would prefer the former. Consequently, he takes pictures with-

out the faintest degree of taste, while he has all the chemical and mechanical skill necessary to make & treat his plate. This fellow of Notman has made me look somewhat less like a Phila. fireman than most of his brethren have succeeded in doing.

I wish I could go out to see you this summer, or, better still, see you with us. As to the latter, we trust you to come whenever it is right & best you should—& not before. You must know that we think of you always, & always with love; that the family is never mustered for a meal but that we think of him who is not there, but far away, acting his part as a man among men. . . .

I have a month of traveling and addresses before I go to the mountains. Am to deliver the address at Wells College (where my old classmate Frisbie is president); to speak at Endicott Peabody's Groton School; to attend the 30th anniversary of my class at Amherst; and to make the oration before the Society of the Army of the Potomac at Portland.

A very busy time I shall have of it.

On March 19, 1891, General Walker had the congenial task of giving an oration at the dedication, in the Massachusetts State House grounds, of the statue of his old office chief, Charles Devens. A story which General Walker repeats therein is worth preserving, as showing a special quality of the elder General which was typical, also, of the younger:

At the battle of Williamsburg, . . . I introduced Colonel, afterward General Wheaton, to his new Brigade Commander [Devens]. The next morning I met Wheaton, who exclaimed with the greatest enthusiasm, "Why, Walker, what a beautiful man he is. There we lay together on the ground, the night so dark that we could not see each other, the mud so deep as almost to take a cast of our forms, the water at times fairly running over us, hungry, wet and dirty, and yet he talked on in that

courtly, quaint voice of his, saying the most delightful things, witty and graceful and fine, just as he might have done at a dinner table or in a drawing room. Certainly he is the most perfect gentleman I ever met."

In 1885, Walker had been persuaded to take the presidency of the St. Botolph Club, whose house was not far from the Institute buildings. There, among a congenial company of artists, teachers and men of letters, he frequently found agreeable refuge, at the luncheon hour, from official calls. He was the second president of that organization, succeeding Francis Parkman. The present Secretary of the Club, Mr. Ira Rich Kent, writes:

. . . He was Vice-President in 1885, and his term as President was from 1886 to 1894. I find that he was unusually active in his office, taking a very great share of the detail of Club administration upon himself and presiding over the unofficial as well as the official proceedings of the Club with punctiliousness, courtesy and enthusiasm. He seems to have been in almost daily attendance at the Club for the period of his incumbency, and to have performed a really surprising amount of labor in the exercise of his office. Perhaps as a result of his army training as well as of the nature of the man, his observance of the etiquette of his office was striking and unflinching, and his conscientious fulfillment of the duties of the presidency made a contribution of great value to the life of the Club.

The reference to official etiquette is significant. Walker was indeed somewhat meticulous on this point and almost always preceded a verbal message with the old-fashioned phrase: "Mr. Walker presents his compliments."

One of the most characteristic photographs ever taken of him was a casual one, made while he was

standing under the top light of the St. Botolph Club's picture-gallery.* In it he is holding his eyeglasses between thumb and forefinger in a way peculiar to him when talking or lecturing. He was a singularly handsome man, especially at that period. While his coal black hair had thinned and his heavy mustache was silvering, his deep-set eyes were as keen and piercing as ever, and the lines of thought and care gave a compelling gravity to his face. His outstanding features were those eyes,—which actually glowed and with which he looked straight into those of the individual to whom he might be speaking,—and his carriage, which never for an instant sagged from its conspicuous erectness. No uniform was needed to tell the passer-by that here was a soldier ready for instant action as, indeed, he always was.

On the æsthetic side, Walker, while indifferent to music, had an unusual interest in pictures, of which he was an excellent critic; in architecture, regarding which his knowledge was not inconsiderable; in the forms and varieties of the art of writing; and in natural beauty. It is significant that his more material interests were so many and conspicuous † as to throw

* Professor Roland P. Falkner writes: "I have a very distinct memory of going to Boston as a young college instructor to read a paper before the American Statistical Association of which General Walker was the President. I was in my early twenties, but I shall never forget the fine courtesy with which General Walker received me as a co-equal worker with himself in the statistical field. He exerted himself to make my two days' stay in Boston a pleasant one and I have delightful recollections of a family dinner at his house. Later he took me to the St. Botolph Club, where a reception was being given to Mr. Arthur Nikisch, recently appointed the Director of the Boston Symphony Orchestra. Dr. Walker was president of the club, and as his personal guest I felt that he was making as much a lion of me as he was of Nikisch, altho of course my roar was much feebler."

† It is justly declared by Professor John H. Gray: "I know of no other American who reached so high a rank in so many different fields of activity. He gave shape and value to American statistical work

into the background tastes which, in a less versatile man, would have been notable.

through his influence on the United States census and the American Statistical Society. He took an admirable and influential part in American military history. He was a distinguished author in the field of Economics and one of the founders of the American Economic Association. He gave shape and significance for a time far beyond his own day to technical education through his relation to the Massachusetts Institute of Technology. He was a good citizen and great scholar and distinguished organizer and administrator and a loyal and beloved friend."

Professor L. L. Price of Oxford writes in an obituary notice:

"The most prominent characteristic of his work, as of his life, was its many-sidedness. He was distinguished alike as statistician and economist. . . . Within the more limited sphere of economics proper he had written on money, on wages and on rent besides compiling a general text-book. And he brought to his professorial work the vivid experience of a military campaign and a keen interest in affairs. For this reason he knew the arguments which would appeal most forcibly to the plain man and was aware of the difficulties which he ordinarily encountered."

CHAPTER XVIII

NATIONAL AND INTERNATIONAL SERVICE

As already noted, there was widespread dissatisfaction with the Census of 1890, mainly because it had been entrusted to a series of partisan politicians, under whom its administration had reverted to the sordid days before Walker took hold of it in 1870. As already noted, he refused to be drawn into the somewhat heated controversy.

That General Walker's general opinion of Washington politics had not softened since his experience with the two censuses is indicated by the following statement made by him in 1892:

For myself, I desire to say that before I will vote for any man who represents the worst elements of the Democratic party, who is put forward by the brutal part of the Democratic party, I will vote cheerfully for President Harrison; I will vote, in a melancholy mood, for Thomas B. Reed; I will vote for William McKinley, though I have to take my family physician to the polls to give me a subcutaneous injection of morphine to support me during the act.

Of course this reached the newspapers, and a clipping, underlined, was pasted at the head of the following letter from Speaker Reed:

Washington, D. C., 28 Feby., 1892.

My dear General:

The other evening, the first time I had seen her since you were here, Mrs. Heintzelman told me you thought I

didn't dine there because I didn't want to meet you! If you really thought such a wicked thing about me who like you in spite of your virtues, don't you think that the underscored words make this a too terrible revenge? You need not confess but I am sure you will repent. You must have done it in the "heat of debate."

Sincerely yours,

T. B. REED.

In this association, the following letter written to Mr. Scudder in January, 1893, is apropos. Evidently Walker had been asked to write for the *Atlantic* concerning the Hayes administration:

Really and truly, Mr. Scudder, I am so weighed down not merely by work but by the sense of delinquency for work promised but unperformed, that it is simply impossible for me to undertake anything new. I am every day expecting to be "taken up" for breach of contract.

I trust the *Atlantic* will have an article on Mr. Hayes which shall do full justice not merely to the intrinsic merits of that administration, but to its disinfecting virtues as related to the Second Grant administration. If it hadn't been for Mr. Hayes' term taking out the sting of the preceding one, Mr. Garfield could not have been elected in 1880.

The *Atlantic Monthly* seems ever to have been in editorial pursuit of him. Earlier, in November, 1889, while Thomas Bailey Aldrich was still editor, Walker had written to Mayo-Smith:

Immediately on the announcement of the Brown lecture course, Bailey Aldrich, Ed'r. of the *Atlantic Mo.* wrote asking me to give him the article for publication, which I cheerfully promised to do, not dreaming that two persons could be stricken with the madness of desiring it at the same time.

Otherwise it would give me great pleasure to send you the article. I am free to say, however, that so far as I

have gone in my work of preparation, the Atlantic Monthly or the Atlantic Ocean would be a better receptacle for my paper than the Political Science Journal.'

Two years later, Walker writes to Mr. Scudder:

You are in the right in thinking that such a series of articles on the Great Soldiers of the War might be interesting and instructive, even after the deluge of War literature from which we are still dripping. I should certainly be much pleased to treat Gen. McClellan after the fashion you indicate.

But this is unfortunately impossible. If you only knew the depths of the perfidy in which I have to seek refuge from indignant editors and publishers, you would not even ask me to do anything more.

To this period belong the following characteristic letters. The first, dated February 3, 1890, is to Professor Mayo-Smith:

Indeed, and indeed, if I were President of Columbia, I should say to my Professors, Get thee forth; go and see the schools of technology and the other Colleges of the land and participate in the festivities thereof. Especially go to Boston and learn of it.

No, I have not been invited to Columbia, to witness Mr. Low's inauguration. Whether it was my personal unworthiness, or the insignificance of the institution I represent, or a rule to invite only Classical Colleges, or a limit of age, only institutions founded prior to 1800 or to 1850 being included, I don't know. I should certainly have gone, if invited, for I like Seth Low exceedingly and I rejoiced greatly at his appointment to Columbia.

I wish you could be with us on the 18th—and do the other things I wrote of. It would do you and Mrs. Smith lots of good. I wanted to refer especially to the group of Amherst men at Columbia, as a proof of the influence of

Amherst in developing a capacity for pol. and historical studies—and, then, d'ye see? introduce Prof. R. M. Smith to respond. But I am foiled, unless you shall decide, after all, that you can come just as well as not. . . .

I am exceedingly sorry to learn that Mrs. Smith has suffered so much from the influenza. Mrs. Walker and four of the children have been down with it; but we are all right now. My oldest daughter and I have escaped, though I have had a bad throat all winter; but that is due to a definite cause. What a curious thing this influenza is: Here I have this morning a letter from Prof. Foxwell, Cambridge, saying that he is just getting up from a severe attack. From the steppes of Russia to Butte City, Montana, the whole world has been laid low.

P.S.—Foxwell says that Marshall is “quite frisky for him,” but very slow with his book.

The next letter of Walker's relates to this book of Professor Marshall's, his *magnum opus*, on the “Principles of Economics.” It is addressed to him, on October 16, 1890:

More and more I enjoy, more and more I admire your work. The spirit and tone of it are admirable. The elevation and dignity of sentiment are quite as impressive as the strength and severity of the thinking.

You have made a great, a very great, book, which will, I am confident, exhibit the characteristic of a few books, namely, the capability of growing more and more upon the mind of the public.

I am much impressed by the enormous advantage you have over a man like myself, for example, in being a mathematician and a physicist. I shall have to qualify that remark. The advantage I have in mind comes chiefly from your being a physicist. I don't so much envy the mathematician, tho' I can readily see that he has a great power of illustrating economic truths, and of expressing

them in terms at once compact in themselves and familiar and welcome to many minds.

But the physicist (who might, I suppose, conceivably be not even a good mathematician) has a truly enormous advantage in studying the phenomena of industrial society, in watching the propagation of economic shocks, in tracing the lines of fracture from commercial or financial disasters, in appreciating and estimating the degree and the direction of industrial forces making for good and of industrial disturbances making for harm.

I have been much impressed by this thought as I read your work. It seemed to me that only a man who had profoundly studied the mechanics of heat, light and sound could exhibit so much insight into the nature of economic forces and so much at once of capacity and of restraint in judging and even estimating their effects upon human society.

On May 10th of that year, Professor Charles S. Sargent had written to President Walker:

I hope that you will be able to accept the position of Park Commissioner. It is of the utmost importance that the Commission should be strengthened in every possible way at this time when large sums of the City's money are being expended, and when the whole future of the Park System depends on the character and standing of the Commissioner. There is certainly now no way in which you can so well serve the public as by accepting this position, which, as you know, is an honorable and an attractive one. . . .

I have, too, a personal interest in the matter both as Director of the Arnold Arboretum, which in a certain sense comes under the control of the Boston Park Commission; and also, as one of the Brookline Park Commission, the two boards being united by bonds of common interest in the Muddy River Improvement.

None knows or appreciates better than I do how busy you are, but after all, busy men can do the most and this is a case where *noblesse oblige*.

President Walker undertook the new responsibility, and found satisfaction in a work that appealed to his æsthetic side and caused him to feel that he was making a contribution of far-reaching consequence to the well-being of his native city. He remained on that important Commission for six years, during which period the main development of Boston's notable park system took place. He gave up the position only at the earnest call of many citizens that he should do a like piece of constructive work for the Boston Public Library, to the governing board of which he was appointed in May, 1896. Concerning this change, he wrote to his son, Francis:

I was very glad to go upon the Public Library, though it involved my resignation from the Park Commission. The park work has been very enjoyable the past six years, although it has been carried on at great disadvantage, owing to my distance from the office. The public library is close at hand, and I can do my work there at a maximum of advantage.

Meanwhile, Massachusetts had utilized his experience at the Philadelphia Exposition by persuading him to serve as chairman of the State Commission for the World's Fair of 1893 at Chicago. President Walker spent some time there, in the summer of 1893, and shared the general enthusiasm over its surpassing architecture. He was often heard to say that everyone should visit the World's Fair, "even if he had to mortgage his house to do so." He showed his faith in it, moreover, by sending six of his own children. He is quoted in the *Chicago Tribune* of June 15, 1893, as saying:

The Philadelphia exhibition did an astonishing work for the American people in elevating their aims, refining

their tastes, and bringing the inhabitants of the various sections to know themselves and each other. . . . The Chicago Exposition . . . begins where the Philadelphia one left off. It will carry forward that beneficent work with results of inestimable value. . . .

I have long believed that the American people would achieve as great success in art as they have done in industry when they once turned their minds and their hearts to it; and it seems to me now that they have done this earlier than could have been expected by the most sanguine. The White City is beautiful beyond any man's power of expression, and no one can conceive its beauty and magnificence except by looking upon it with his own eyes. It is the first great artistic triumph of the American people. After 1893 it will be known the world over that there is an American school of architecture, bold, strong, and free, with inspirations and ideals of its own, and with the most magnificent opportunities which any body of artists could desire.

The two following letters, written to his son Stoughton, then in Chicago, belong here:

Boston, February 28/93.

I did up for the mail this afternoon, addressed to you, two novels which I have read on my recent travels and which I thought you might like, though one of them has lost both covers—"The Moonstone," by Wilkie Collins, is fine; and "The American Baron," tho' on a much lower plane, is funny enough to read once.

. . . I had hopes of going out to Chicago this month; but I was obliged to give that up, on account of an invitation I could not well decline, to Montreal. Then I was snowed up on a branch of a cross-line of the Pennsylvania system, in Centre County, and could not even get to Montreal.

We are "rushing things" at the Institute, in order to get up a creditable exhibit at "The Fair." We shall have so many interior and exterior views that you will be made

homesick by looking at them—One of the views of “Rogers” is to be enlarged to 44 x 65 inches! and Ross Turner is to color it. Fine!

October, 1893.

We have all kept well, &, now that the football season has fairly opened, we may be said to be all happy. Little more than an occasional game is required to keep the Walker gang going. I have expected to go out to Chicago again during the Fair, but it has now become very doubtful. It is hard for me to get away. At the same time I should *like* to. I *ought* to, for there is a good deal to be done in selecting the articles, or rather, classes of articles to be brought back to Boston, which no one could do quite so well as myself.

I am going to Rochester to deliver two lectures Friday afternoon & evening: & I may feel that I can break away & go on as far as Lake Michigan. If I do, I wish to see as much of you as possible. Thank God, there will be no Congresses in session, this time.

Lucy returned from her second trip, having had a royal good time, all the better for being unexpected. She has begun to stamp on the little children's heads at the kindergarten, in much her old fashion.

In that year of the World's Fair, Walker was made a Corresponding member of the Institute of France. Concerning this, M. Émile Levasseur comments later, in a eulogy of General Walker:

L'Académie des sciences morales et politiques, qui cherche le talent et honore les services rendus à la science, sans circonscrire ses choix aux limites d'une école, avait distingué depuis longtemps le général Francis Amasa Walker; lorsque la mort de M. Émile de Laveleye, eût laissé une place vacante, elle l'avait élu correspondant pour sa section d'économie, statistique et finances au mois de janvier 1893 en remplacement du fécond et ingénieux publiciste belge qu'elle venait de perdre. Elle a joui trop

peu de la collaboration du général Walker et elle associe ses regrets à ceux des corps savants d'Amérique.

Of the unusual honor, Walker himself writes to Professor (now Sir) William Ashley, on February 2, 1893:

I found your very kind note, congratulating me upon my election as a Corr. Member of the Institute of France.

I should have made earlier acknowledgment of your thoughtful goodness to me; but for ten days I have been in a whirlpool, the close of the first half year and the beginning of the second having come within that short space.

I was deeply gratified by the event to which you so kindly refer. As a general thing, I don't care much for "honors," titles or degrees; but, without affectation, this one is most acceptable and agreeable to me.

It is to be suspected that, as is so often the case, President Walker's extraordinary contributions to economics, and his unusual ability as a keen critic of old, and a lucid exponent of new, hypotheses, were more highly appreciated on the other side of the Atlantic than on this. For example, Sir William Ashley writes in 1921:

He was distinguished alike as a soldier, as a civil servant (in charge of the U. S. Census), as an administrator of a great educational institution, and as an economist of originality and wide influence. Such a combination as it were of four careers, all notable, was astonishing to us in the Old World; and even in America, where professions are not so sharply marked off from one another and where men are more versatile, it must have been almost unique. . . .

In my paper on *The Present Position of Political Economy in England* (Economic Journal, Dec. 1907), I

find I have coupled Walker's name with those of Jevons, Cairnes, Bagehot, Cliffe Leslie and Toynbee, as in various ways during the decade 1871-1881 calling in question the Ricardian authority definitely formulated by the younger Mill in 1848. That indeed is true: to the scientific ferment, among serious thinkers, Walker was but one of several contributors. But in one respect—how important will be variously judged—and in relation to England, Walker was unique in his position and influence; and that was as a text-book writer. In Oxford then—as I believe now—a large number of undergraduates, taking a pass degree, offered Political Economy as one of their subjects. I had one experience of acting as Examiner for the Pass School before I left Oxford for Canada in 1888, and returning to Oxford subsequently from time to time I kept in touch with the situation. And it may be summed up by saying that the chief desire of all the younger tutors who really cared for Political Economy—there weren't many of them—was to get Walker's text-book substituted for Fawcett's as prescribed reading. We felt that "Fawcett," as Thorold Rogers used to say, was simply "Mill and Water"; that it did not advance one step beyond the intellectual position of 1848. We felt that Walker's distinction between Profit and Interest, his emphasis on the *Entrepreneur*, his teaching that wages were paid from Product, and that the wage earner was the "residual" claimant, whether absolutely and finally true or not, were at any rate truer than what was laid down in "Fawcett." But above all, we felt that "Walker" was interesting, a transcript (if an incomplete one) from real life, full of knowledge of affairs and of human nature, and that "Fawcett" was deadly dull.

I don't know that we expected much intellectual or social benefit would follow from the perusal of any economic treatise by pass men; but at any rate "Walker" gave us a chance to strike a spark occasionally from the hard rock. And the triumphant substitution of "Walker" for "Fawcett" in the Pass Schools of Oxford—and in similar examinations elsewhere—and the very general use of his book for the next couple of decades cannot have been

without its effect; though perhaps we are too near to say just what the effect has been.

The other matter—of personal reminiscence—is this. In 1892 I was present at the great academic gathering which marked the Tercentenary of Trinity College, Dublin. I did not know Walker by sight. At the first great evening reception, there was a fine and swarthy figure in a wonderful scarlet robe. Word went round—"A Roman Monsignore, specially sent by the Pope! Very decent on the Pope's part, considering that T. C. D. was a Puritan foundation." Next day we learnt it was Walker, in (I think) the robes of his honorary doctorate of St. Andrews! As I had just been appointed to Harvard, I sought his acquaintance. Towards the end of the celebration, a photograph was taken of those to whom T. C. D. gave honorary degrees. In the crowd I saw the three distinguished economists of three countries: Walker, Leroy-Beaulieu in the green uniform of a member of the French Institute, Wagner of Berlin, in the gown and white ruff of a North German professor. I thought how interesting it would be to get them to stand together in the photograph—They did so: L.-B. and Wagner probably thinking I was an official who had a right to marshal them. Walking away, Walker said, "You know, Professor Ashley, that was rather awkward. Since I reviewed Leroy-Beaulieu's book on Rent, we haven't been on speaking terms!"

Before Walker's death, Professor H. S. Foxwell wrote, referring to the "Briefer Course in Political Economy":

. . . The great thing in an elementary book is to sketch out broadly the considerations which are practically at the time the most important. Some of our theorists are over-subtle and seem to me to miss the really vital issues. You, on the other hand, if I may venture to you an opinion on the work of my master, seem to fix unerringly on what is of real consequence. I do not think a better book of the kind could possibly be written; and I prefer it in some respects to your larger book. The theory of distribution seems to me to have distinctly gained in clearness and force of presentation. . . .

I hope you will never be tempted to give up your economic work. We really can't do without you just now. I should like, for instance, to hear what you have to say on monopolies and trusts. I should also very much like to have some analysis of the distribution of the product of industry, similar to that given by Atkinson in his *Distribution of Products*. I don't quite follow Atkinson. He does not seem to me quite clear on points of principle—as for instance in all he writes about currency—and I should very much prefer to have the investigation as you could give it to us. . . .

So, too, in regard to consumption, its economies, its fashions, its fluctuations, and its laws generally. I think that with your elaborate statistics in the United States you might give us something most valuable on this almost unexplored subject.

At any rate we are always grateful to you for anything you write. It always seems to me to give the study a distinct lift in the right direction.

In this connection, a letter written by Professor Foxwell a few months earlier has extraordinary interest at the present time, as representing a characteristic attitude, then and now, on the part of a large group of English thinkers:

I need hardly say that I agree entirely with your temperate and reasonable attitude on the question of *Laissez-Faire*, and with almost everything in your able and I should hope authoritative pronouncement.

It strikes me as a little curious that you should apologize for the use of the word "aristocratic" and assure your hearers it was not used offensively. To my mind, whatever may be the nominal or paper constitution, an aristocratic is the only possible government, at least in Europe.

France seems rapidly going to decay under her government of professional politicians. It was an aristocracy that built up the British Empire, and it is the aristocratic element in England that maintains it. If we ever become really democratic (our democracy is only nominal,

skin deep at present) I have not the smallest doubt in my mind that bit by bit we shall lose all we possess, all that makes these tiny islands deserve a place in the world's history—perhaps become ourselves subjects of some more masculine state.

All through the terrible period, 1800-1850, of which you speak, though a certain section of prominent aristocrats may have been somewhat heartless and selfish, to my mind the class shows up very well. They did their best according to their lights, and promoted almost all the movements which have proved themselves the right ones. The mischief was done by the commercial money-making class, and by the Whigs and doctrinaires. I think there was scarcely one of the evil tendencies oppressing labour that was not denounced again and again by parson and squire; while the popular minority of the sects seem never to have opened their mouths on such subjects with very rare exceptions.

To my mind, the backbone of this country lies in its "gentlemen." The mob seems to me no better except perhaps for a certain good humour than a French or any other mob. It is sensational, melodramatic, narrow in its view, wanting in imagination, wanting in public spirit, wanting in respect for law, wanting in short in all the qualities that make a great or a governing race.

In return, it shows a kind of mawkish unregulated sympathy for misfortune, no matter what the cause of the misfortune, or the effect of the sympathy.

I try not to be pessimistic; but my only hope for England is that the people may continue as at present, to desire to be led by those who are better than themselves. When the apostles of democracy have succeeded, as they are straining every nerve to succeed, in knocking this disposition out of the people, and making them really believe Gladstone's favourite text, that the masses are always right and the classes always wrong, we shall be within measurable distance of the end.*

* President Tucker of Dartmouth college contributes an interesting reminiscence of the lamented Gen. Francis A. Walker. "In the last conversation which I had with him," says President Tucker, "as the subject of national independence came up, he said, 'If the liberty of Switzerland or Holland were invaded I would shoulder my musket in

How opposite to Foxwell's were Walker's views of English politics is shown by the following excerpt: *

Even to the present moment, I, for one, believe that the conscious, purposed efforts of the working classes of that country, through the organizations by themselves created, sustained, and administered, to improve their industrial condition, have continued to be the greatest educational force in English life; have done more to raise the general level of character, conduct, and political capability throughout the kingdom than any other agency.

In 1895, General Walker published, through the Scribners, a little volume, in the "American History Series," called "The Making of the Nation." Of this, a review in the *New York Nation* says in part:

General Walker, besides being an authority on statistics, knows the human product of the American soil thoroughly. . . . The author does not hesitate to put down in black as well as in white the traits of the American people. He knows the real meaning of the war cries and shibboleths of parties. Out of the lion's bones of many an old bit of forgotten slang he brings forth the honey of delightful generalization. He shows just where and how political parties and politicians were healthfully inconsistent with the ultimate good of the nation. The eating of bitter "crow," for instance, has often resulted in good blood for the country. The author analyzes and distills the political literature of his era, and gives the clear literary decantation on his pages in a way that none can appreciate more than one who has tried to do likewise.

Unfortunately, the demands upon Walker's time were so great and so distracting that he found little opportunity in his later life for writing, except to keep his

a minute.' Thus does the spirit of liberty and democracy break forth and serve notice that Americans of the highest type will not suffer tyranny to be re-established on the continent of Europe, not to mention South America." (From *The Congregationalist*, 1897.)

*Knights of Labor, *Princeton Review*, 1888.

existing books up to date. This he insisted upon doing, since the science of economics was so rapidly growing and changing. The following letters to his publisher bear upon this matter of revision. The first is dated June 27, 1893:

I have not looked into ——'s book for years, and, if I know my own heart, I never will again. I told you, when I took the work up for revision, that it was a thoroughly poor book, utterly out of proportion and lacking in perspective. I told you again, when I got through revising the book, that it was as full of errors as an egg is of meat; and, but for your desire to save as many of the plates as possible, I should have sent you a much longer list. . . .

I hope to be able to revise my books this summer, though the occurrence of certain congresses and conventions at Chicago, into which I have been "roped" will make my summer a very busy one at the best.

The following letter, undated, takes, quite logically, exactly the opposite to his usual attitude in the matter of revision:

Yours about the Wages Qu. rec'd.

I haven't the slightest desire to see the book bro't down to date. It was a very good book published in 1876. If anybody wants to buy it on that basis, I am glad to have him do so; but the book is vastly different from what I should write now—at the mature age of 54, with 18 years of added experience and observation and reading. The whole make-up of the book, the style, the class of illustrations, the argument at many points,—all these things are such as I could not repeat now and would not wish to. The book could only be brought into the form of a book written by Walker of 1894, through a total recasting and total rewriting. This I don't wish to do and you don't wish to have me.

If that is not to be done, let the book stand as it is. To revamp it, to "block" it, as your hatter does with your tile, to add a postscript and a new prospectus, is not at all according to my wishes and feelings. I desire it to remain, not only substantially, but in form a *book of the year 1876*. It was only by mistake that a later date got on to the title page. I have always regretted it. I even left my original designations (as Prof. in the Sheff'd School and as M.A., Ph.D.) on the title page—so that it might appear just what it is, a book of the early days of the Wages Controversy. I shall never touch it at all, unless I am prepared (and you are disposed) to have it thoroughly and completely revised, which would make absolutely a *new book* of it. There would not be a single stereotyped page of it left.

Each of the following eminently characteristic letters has its own stamp of finality. The first is dated May 19, 1894, and the second, January 23, 1896:

Dear Henry,

No thank you, I have written books enough and, indeed, too many.

If I ever write another, it will probably be after a considerable period of silence, most refreshing to me and to my constituency.

My dear Henry:

All right. Send along the couple of shop worn books and I will revise the advanced edition.

As to the book not being up to the times—that is all well enough. It has not been revised for some time, and I can undoubtedly considerably improve it; but I do not propose to make it anybody's political economy but my own, and many of the notions now taking possession of the economists I have no sympathy with. If that fact is going to make my book in any degree fall out of use, it will have to be so. My works must remain an expression of my own thinking on the subject.

CHAPTER XIX

BIMETALLISM

THE note of asperity in the last letter of the preceding chapter is due, doubtless, to the violent storm into which Walker had been precipitated by his militant advocacy of international bimetallism. This nation-wide and, indeed, world-wide difference of opinion concerning the basis of exchange was, of course, immensely aggravated by the projection into American politics of William Jennings Bryan, by a Democratic national convention frenzied because of his notorious "cross of gold" harangue. For sixteen years thereafter, Mr. Bryan was the stormy petrel of presidential and other politics, and during the earlier and more heated years of the fight against Bryan's monetary heresies, General Walker was, in the East if not in the Country as a whole, the leading scientific protagonist of the parity, for monetary use, of both gold and silver.

The unbridgeable chasm between him and Bryan was, of course, the fact that he had solely in view the adoption of a double standard by all the leading financial nations met in solemn conference, while the "perpetual candidate" was for the free coinage of silver, at the ratio of sixteen to one, by the United States regardless of the other nations. Yet the fight for the maintenance of the solvency of the United States against the wild inflationism of Bryan and his followers,—a verbal conflict that became almost as bitter between the East and West as had been that, preceding the Civil War, between the North and South—was

undoubtedly made harder and more uncertain by the fact that, very largely alone in his section of the country, the leading American political economist was advocating international bimetallism. However antipodal Walker's views were to the things preached by the inflationists, his arguments were asserted by them, on the hustings and in their newspapers, to be an endorsement of their views.

Deeply disappointed by the abortive outcome of the international monetary conference of 1878, of which he had been a member, General Walker gave increasing study to such problems as that of fluctuating prices, and became ever more nearly satisfied that the untoward conditions of that period which led to the panic of 1893, and to the prolonged industrial depression which followed it, were due to the demonetization of silver by Germany in 1873, and to the subsequent abandonment of bimetallism by France and other Latin countries. Following are the main arguments for bimetallism, as presented by General Walker in the *Independent* of October, 1895:

The great standing argument for bimetallism has reference to the fact that the world is made up of two groups of nations, one of which uses gold, the other silver, as the principal or sole money of full legal-tender power. Contemplating such a situation, the bimetallicist declares that it would be of great value to the world's trade, and, by consequence to the world's industry, if, by some arrangement, an approximate par of exchange between gold and silver could be created. . . .

If it were possible to establish a system which should create an actual, or even only an approximate, par of exchange between gold and silver, so that a given quantity of gold should always bring nearly or quite a given quantity of silver—ten times, or fifteen and a half times, or twenty times as great—Commerce could not fail to be at once wonderfully steadied and stimulated thereby. In

consequence, Industry would be enabled to go forward confidently and strongly to the limits of the human powers of production. . . .

Such is one of the advantages of a permanent character, which would result from the establishment of the bimetallic system. The other of these advantages would be found in the greater steadiness of value which the compound mass of gold and silver would possess, in comparison with either of the constituent metals. The history of the precious metals is one of spasmodic and often intermittent production. Not only has the production of gold and silver varied greatly from age to age, but the production of either metal has exhibited, throughout the centuries, an even greater degree of fluctuation. At times it has been gold which has fallen off rapidly; at times, silver. At times it has been silver which poured in great floods from newly opened mines; at times, gold. It stands to reason, therefore, that, if the two metals could be joined together in the money function, at something closely approaching a stable ratio, the world's trade and production would suffer much less from variations in value.

We now come to an argument for bimetallism which has been given great, possibly undue prominence during the past twenty years. It is the argument drawn from the situation since 1873. The bimetallists assert that, in view of the volume of debts, public and private, existing at the time when Germany demonetized silver and the French mints were closed to the coinage of that metal; in view of the enormous and increasing use of gold in the arts; in view of the vast expansion of the world's production of wealth, in consequence of improvements in arts and discoveries in nature; and in view of the change in the habits of all peoples in respect to the use of money, the effect of the progressive demonetization of silver, following the act of Germany referred to, has been to diminish the world's supply of money in proportion to the demand for it, and thus to cause a fall of prices which has resulted often in great stagnation of industry; which has prolonged, if it has not produced, commercial panics and crises; which has transferred vast volumes of wealth, unearned, from the debtor to the creditor classes; and which

still continues to hamper and embarrass trade and production the world over. That this argument has been made use of by demagogues, and has been accepted by many of the unthinking for more than it is worth, and has sometimes been turned into an attack upon property and capital and commercial enterprise, does not in the least impair the rightfulness of its use in urging the restoration of the bimetallic system. . . .

There never was a more cold-blooded act instigated and initiated by a set of doctrinaires than that which led to the monetary revolution of 1873. Happy will the world be if wiser counsels, stimulated by the bitter experience of the past, shall in time lead the principal commercial powers to re-establish bimetallism upon a broad international basis!

These arguments had been formally presented by him, at least five years earlier, in lectures delivered at Harvard and published in the volume, "International Bimetallism." Concerning this book, he had written from Amsterdam to Holt:

I have to-day received a copy of International Bimetallism. It looks well,—thanks to you. I hope it will sell well, tho' on that point I am never sanguine.

In a postscript, he adds:

By the way, if there is any heavy attack on the book from your stupid, bigoted monometallist crowd which ought to be answered for the book's sake, I would be glad to have Professor Willard Fisher's attention called to it.

The "crowd," and the newspapers which advocated gold monometallism through thick and thin, certainly did attack him, almost without ceasing, throughout the remaining years of his life. The New York *Evening Post*, especially, would not let him alone. To quote a note in Walker's own hand attached to the clipping, its hounding reached "the lowest ebb" in the following editorial:

President Walker has taken up his bimetallist crusade in good earnest. His pamphlet on the subject is issued as a "Tract for the Times," but the question is, what times? When some one told Horace Bushnell that a certain preacher was behind the age, he exclaimed: "Behind the age! He is behind all ages!" Mr. Walker practically admits that, as far as the United States are concerned, bimetallism can now be discussed only *in vacuo*, but thinks he sees a bright future for it in certain things which he believes England is soon going to be forced to do. In other words, the only hope left bimetallism is that of seeing "England on her knees," on the principle that Satan (monometallism) trembles when he sees the weakest saint upon his knees. England was to have fallen a-kneeling immediately after the repeal of the silver-purchase law, according to President Andrews, and various forms of financial devastation were going to sweep down upon her. But so far all the convulsions and all the kneeling have been confined to the theoretic bimetallists in this country. When we look at President Walker's list of backers, we can only say with Hosea Biglow:

"Massachusetts, God forgive her,
She's a-kneelin' with the rest."

This screed was called forth by the fact that, on February 5, 1894, a meeting to "organize a Committee for the promotion of Bimetallism" was held in Boston, the call being signed by nearly sixty prominent bankers and others, including such names as H. L. Higginson, George F. Hoar, Nathaniel Thayer, J. M. Forbes, Augustus Hemenway and Henry Cabot Lodge. To quote from the printed circular:

Those concerned in the movement, while earnestly opposed to free coinage of silver, or any increased use of silver by this country, independent of international action and agreement, believe that the repeal of the purchase clause of the Sherman Act affords a fitting and fortunate opportunity for advancing the cause of International Bimetallism. They believe that the day is not far distant

when the necessities of commerce will compel an international use of silver as well as of gold in the currencies throughout the world.

These conservative backers of the movement which Walker led were encouraged by the fact that England seemed to be rapidly coming to the bimetallic point of view. As General Walker declared, in a letter of that period to the *Boston Herald*:

When I went abroad in 1878 as a delegate to the international monetary conference at Paris, there was but one man in England to whom I could address myself as a sympathizer, and he was a second-rate banker and a second-rate pamphleteer, although an altogether worthy man, by name of Mr. —.

Today I do not know of a single professor of political economy in England who is a gold monometallist, while several of the most distinguished are active writing, lecturing bimetallists. I said that 18 years is a long time. Not only so, but 18 months is a long time. That time has been long enough to bring upon the side of bimetallism, as its outspoken advocates, two men of such rank in the United Kingdom as Leonard H. Courtenay and A. J. Balfour. The former of these was one of the six gold monometallists of Lord Herschel's commission of 1886-8. His accession to the ranks of the bimetallists changes the constitution of that commission to seven against five in favor of bimetallism as a practical measure.

Within the year, Mr. Balfour, the Conservative leader of the House of Commons, has taken the platform as an outspoken and even vehement advocate of the same cause,

In an interview in the *Boston Globe*, Walker stated the purpose of the committee:

. . . There were a few persons who have deprecated the formation of the committee on the ground that it would only tend to excite further agitation at the south

and west, and to arouse false hope on the part of the friends of free coinage of silver.

The committee, after long and thorough discussion of this point, is fully convinced that such a view is erroneous. We believe that the disaffection of our fellow-citizens at the south and west has been increased, and their feelings have been made more bitter by the systematic misrepresentation of the views and purposes of the people of the northeast unalterably devoted to gold monometallism.

In any case we hold that there is only one way of fighting a half truth and that is by telling the whole truth. Half truths are the most dangerous forces known to society. They have been at the root of all the fanaticisms in the world's history.

The south and west have got hold of a half truth, or rather a half truth has got hold of them and has excited them almost to the point of frenzy.

The half of the truth which has thus moved our fellow-citizens is that diminished money supply constitutes a grave and increasing danger to society and industry. As Mr. Balfour said in his great Mansion House speech, a diminishing money supply constitutes "the most deadening and most benumbing influence which can touch the enterprise of a nation."

To the silver fanaticism of the south and west the gold monometallists oppose a half-truth of their own, namely, that an inflated, depreciated and fluctuating currency is a source of monstrous evil.

Now a half truth which arouses fanaticism has never yet been successfully opposed by a half truth appealing to conservatism.

The only way to meet a dangerous half truth is by telling the whole truth. In this case the whole truth is bimetallicism—bimetallicism on the broadest national basis which would at once put a stop to the disastrous appreciation of gold that has been going steadily forward ever since 1873, and at the same time give to the metallic money of this country, and of the world, a degree of stability which is literally impossible under the system of gold monometallism in some countries and silver monometallism in others.

The opponents of international bimetallism continued for several years to scold about this meeting of Boston leaders, and, as shown by the following, addressed September 11, 1896, to his foremost "baiter," the New York *Evening Post*, General Walker was roused, at last, into one of his rare rages:

In your issue of the 9th of September you assert that the declaration in favor of international bimetallism made here in New England, in 1894, was "perhaps the most potent single force in causing a revival of the silver craze." For my colleagues on the Boston Committee, I indignantly repel the charge. "We have not troubled Israel, but thou and thy father's house." Many causes have contributed to the present ill-omened gathering of the discontented, in all parts of the country; but in no small degree is it due to the arrogance with which the monometallist press has dealt with the question of the use of silver; the studied insolence with which the views of economists, statisticians, and statesmen favorable to bimetallism have been treated; the outrageous abuse to which millions of citizens of the United States have been subjected from the same source.

Please look at it, Mr. Editor: Here is a journal which claims to represent all that is fine and high in intellectual, social, and political life; and yet this dainty conservator of morals and manners has habitually through twenty years applied the terms "lunatics" and "idiots" to those who hold views differing from its own on the subject of the use of silver as money. Is it a matter of wonder that angry passions have been roused throughout the West and South, and that hatred of the East has become one of the dangers which today menace the republic? The work of the Boston bimetallist committee of 1894 could, of course, have no extensive or permanent influence; but so far as its influence went it was all in the direction of peace, harmony, and a friendly understanding between the sections of our country.

That this convinced and conscientious advocate suffered from this ceaseless ascription of wrong views

was painfully evident to his friends; but his fighting qualities, stimulated by his profound belief in the fundamental need of such a change in monetary standards as he was seeking to bring about, would not let him rest. A hint of what he was experiencing is shadowed in the following letter, dated September 16, 1893, from Professor Foxwell:

You seem to be somewhat exercised in reference to the shameless misrepresentation to which you are subjected on your side. I need hardly say we have had our full share here. But I wish to let you know (it is my chief purpose in writing) that the intelligent public is beginning to find out the City Editors at last. There has been a most remarkable change of opinion amongst our leading business men; due, I think, mainly to the object lesson afforded by the consequences of the Indian Currency Act, and by the extraordinary bungling of the India Office and Treasury in carrying out that act; and, secondly, to the personal influence of Mr. Balfour, whose most effective speech at the Mansion House on Aug. 3 produced a deep impression.

I don't know whether you have closely followed Balfour's career. It is no exaggeration to say that he is the most interesting figure in English politics. Gladstone has all the theatrical qualities and all the democratic tricks that give popularity with the unthinking: but again and again Liberal M.P.'s have told me there is no one they listen to with the same pleasure and real interest as Balfour.

The reason is not far to seek. He has, of course, remarkable personal qualities: sympathetic speech, singularly clear and vigorous exposition, wide and philosophic culture. He is a brilliant debater and a man of charming manner, always chivalrous to opponents, disdaining as he has done many times this session to snatch a party advantage when accident has put his opponents in a weak position. But the real secret of his strength is that all his action rests on principle and conviction. . . .

Now, this man has absolutely pledged himself beyond

recall to do all in his power to restore international bimetallism: (on reading over, perhaps this is too strong. He has stated his own belief in the advantage of bimetalism in the most uncompromising way: but he would not force it on his Cabinet): and the fact that he has done so has produced a profound impression in the City. Every Director of the Bank but two was present at his address. Lidderdale, the idol of the City since the Baring Crisis, was at his right-hand (L. is a bimetallist in theory, as I know from seeing his letters) and the City Marshal told me that he had never seen so representative an audience of the best City people as at his lecture. The early part was somewhat coolly received; but as he proceeded the applause became continuous and enthusiastic. He was in splendid form, defiant and convincing. He spoke, as usual, without a line of note.

I had a long interview with him at the House the other day. He said he was willing, even at some personal inconvenience, to do anything he could publicly or privately to advance international bimetallism. Mr. Chaplin is just as enthusiastic. . . .

Now you can judge as well as I what this means. It stimulates the old bimetallists, and is transforming the half-conscious, half-verbal opposition of the monometallists. A broker told me the difference in the tone of the City Editors was most marked. Even the Times is trimming. Important men are joining the League every week: and we expect some notable adhesions shortly. Chaplin told me he was staying with Lord Rothschild a fortnight ago at Tring; and had a long conversation on bimetalism. Lord R. said, "It is idle discussing the question unless England is preparing to go into a bimetallic union herself!" "Well," said Chaplin, "and what is the real fundamental objection to our adopting bimetallism?" "You must ask someone else," said Rothschild. "I know of no serious objection." Yet Rothschild will not come forward. He studies City opinion, and does not care to endanger his popularity there, I suppose. Balfour scorns popularity—that is the difference.

Probably Walker's last public effort on behalf of bimetallism—for he declined to go to Brussels as

colleague to Senator Wolcott, stating himself to be "neither a negotiator nor a propagandist"—was at the annual meeting of the Bimetallic League, held in London, July 13, 1896. It was attended by many distinguished men, and a letter of regret was read from Mr. Balfour, who was kept away by illness. Walker made one of the principal addresses and, as the *Times* reports, was "warmly received."

One of the purposes for which he went abroad, with his son, Etheredge, that summer of 1896, was to receive the degree of LL.D. from the University of Edinburgh. In presenting him to the Vice-Chancellor, the Dean of the Faculty of Law, Sir Ludovic Grant, said, in part:

Nowhere can those who have contributed to the advancement of Economic Science be more appropriately honoured than in one of the Universities of Scotland, itself the cradle of that great science; and to no Economists will a Scottish University accord a more ready recognition than to those who come from the great English-speaking people, our kith and kin, beyond the Atlantic. Professor Francis Walker enjoys the distinction of being the best known Political Economist of the United States of America. . . .

The University of Edinburgh extends a cordial welcome to the illustrious representative of American culture, and is sensible that she is honouring herself in asking Professor Walker's acceptance of the highest honour in her gift.

From Edinburgh he wrote, on July 31st, to one of his sons:

This place is just as pretty as it was in 1878, or, rather, in 1871, when I first came here, with Samuel Bowles & his party. I like the looks of it wonderfully. I care little about sightseeing here but much about the general aspect of the city.

To-morrow I take my degree at a grand Function, in gorgeous robes. Shall rejoin the party in Paris on Tuesday or Wednesday.

Earlier in the year, on March 27, 1896, Walker had written in reply to a letter from Dr. William Smart, of Glasgow, in relation to the Venezuelan Boundary dispute,* the following:

. . . We are all greatly rejoiced and relieved on this side of the water, at the prospect of a speedy and friendly solution of the difficulty. Our people really care very little about the disputed territory: all they asked was that there should be arbitration. Whoever the arbitrator chosen may be and whatever his decision, the people of the United States will be entirely satisfied. If England has so good a case as Lord Salisbury asserts, she has a double reason for accepting in this instance a mode of solution which she claims as peculiarly her own. The general statement that a boundary dispute cannot be arbitrated seems to us absurd in view of the fact that England assented to the arbitration of the San Juan question without even suggesting that a boundary dispute was not as proper a subject for arbitration as would have been a question of pecuniary damages.

I should, myself, be somewhat puzzled to explain the readiness of a part of our population, especially the rising generation, to take offense at what England may do. It is mainly due, I think, to the general cause which I indicated in my last letter. Some part of it may be the result of Irish influence. When it is remembered that there are here two millions of people born in Ireland, and several millions more of Irish ancestry, nearly all inheriting bitter feelings towards England, it might be supposed

* How he hated jingoism—this soldier! We rode down to Plymouth together, to hear Senator Hoar's oration, just when the Venezuela excitement was precipitated a year ago, and the newspapers and Congressmen were all rampant. I sat in the seat with him almost the whole way, and I shall never forget his denunciations of war, and the men who recklessly encourage it. (From a correspondent in *The Outlook*, 1896.)

that this element of the population would exert a very strong influence upon the feelings of our people generally. So far, however, as my own observation in life has extended, I should say that the effect of this cause was very small.

Possibly the vapid and empty way in which history is taught in our public schools has had more than anything else to do with this result. Our school teachers, generally young women, not highly trained, being required to teach American history, and not being prepared to give interesting and picturesque accounts of social and industrial and domestic life, or to describe in a taking way, the character of public men and the nature of public events, naturally fall back upon the cheap and easy method of dwelling upon campaigns, battles and military heroes—England being nearly all the time the enemy spoken of. If we had school teachers, qualified and equipped to tell the story of our marvellous conquest of nature and the wonderful progress of our people Westward, cutting down the forests, breaking up the land, and building up farms and new states beyond the mountains, of the arts and inventions which have made us great, of the course of peaceful life and the development of national character, our young people would be much less bloodthirsty.

As to Scotland, understand, my dear Dr. Smart, that no American ever thinks of it, or of its people, with any of the bitterness which too often manifests itself, among certain classes, when England is in view. We are proud to say that the Scotch are the Yankees of Europe; and certainly wherever a Scotchman turns up in the United States, he makes himself, and is cordially made, perfectly at home. We flatter ourselves that there is a great deal of natural congeniality between the two peoples: we should be heartily glad to see the ties more numerous and stronger. I can say with confidence that in all my travels throughout the United States, I never once heard Scotland or Scotchmen, as a people, spoken of in any phrase or with any accent other than that of respect and regard.

CHAPTER XX

LATER YEARS AT TECHNOLOGY

THE immediately preceding chapters, with their account of the variety and extent of President Walker's interests outside the Institute of Technology, might give the impression that he sometimes neglected his responsibilities at that institution. Nothing, however, could be farther from the truth. Nowhere did his stern New England conscience exhibit itself more markedly than in his performance of his daily work. Everything that he might undertake beyond his official duties was secondary, and had to stand aside until his Institute responsibilities had been fully met.

For example, he writes to one of his family, probably in 1891:

New York—Sunday afternoon.

I have finally decided that I will not go home this afternoon with John Ropes & the other fellows who were at the Century last night; but will wait until to-morrow morning & go by the 9 o'clock train. I have rather a guilty feeling as to not being at the office tomorrow morning, tho' I am sure I don't know why I should be. But I can never be away from my business two days at a time without feeling that somebody will die for it.

Have had a pleasant but busy time. Friday evening was a dinner party, with the Dodges, the Williamses, the Holts, A. Bierstadt & others, a very handsome affair. It was that which made me come an hour or two earlier than I otherwise should. Marsh came down from New Haven to attend it.

Saturday I was four hours before the Committee* and spent nearly two hours more lunching with them. They sucked me dry, I can tell you, so far as Census matters are concerned: but they could not commit me to saying anything against Porter.

In a later letter, speaking of an evening at the Century Club, he says:

Everyone was there; it was the second monthly night in the new Club house. Among other curious and interesting things were a score of Bostonians.

To-day I lunched at Douglas Robinson's with Teddy Roosevelt, Cabot Lodge (& Mrs. L.) & Speaker Reed. It was the jolliest luncheon, without exception, I ever attended. Such a fire of witty, or at least funny things, I never heard. The laughter was literally incessant.

Unfortunately, one result of his scrupulous devotion to the work of the Institute was that a great part of his writing, of his preparation for public addresses, of his drawing up of reports for civic and other committees, etc., had to be done at night, in his home. Often would he accomplish what many men would regard as a full day's work after his return from some banquet, or other public function, at which he had felt it necessary, for the sake of the Institute, to appear. While it would be an exaggeration to say that, except during his summer holidays (which, when he was not out of the country, were frequently interrupted by journeys to the Institute office), he was always at his post of duty, nevertheless he was seldom absent from his office in the Rogers Building and, when he went away, it was usually on some errand that, directly or indirectly, would further the school's welfare.

He was particularly scrupulous about being on hand

* To investigate the Eleventh Census.

when he was most likely to be in demand, as at the beginning of the term. Then, as he writes to some one, declining an invitation, "hundreds of young men and their parents feel that they *must* see the president." His secretary, Miss Holt, whom in his last years of service he was persuaded to employ in order that she might ease his burden of correspondence, and constitute a buffer between the world and himself, writes:

No one could be with General Walker every day and not feel the strength of his devotion and loyalty to the Institute which he loved so much. He worked ceaselessly for anything that might advance it, and he spoke of the strain which the financial conditions of Technology made upon him, feeling that he could not give his best to the upbuilding of the school (the educational part) while he was obliged to spend so much time and thought upon the financial side; spoke, the last of his life, of being tired. His heart and soul were bound up in the school. I can see him now going across the hall of the old Rogers Building from the Secretary's office to his own, bowing right and left so courteously and kindly to the students who might be near, and every day his door was open at certain hours so that the students might feel free to come in and see him. He was so thoughtful of the students from a distance who were obliged to remain in the city during the holidays, writing with his own hand invitations to dinner with him. His personality was charming; he was always courteous, appreciative, thoughtful. . . .

General Walker was very careful about keeping his engagements; and he would not accept a place on any board or committee unless he felt sure he could do his part. He always declined to lend his name, simply, for anything.

Miss Holt notes, also, the "heartiness" with which he turned from one task to the next. That, of course, was a main source of his power of achievement: not only his vim in taking hold of each new thing that came

before him, but his ability to put all previous tasks completely out of mind, and to bend all his energies upon the one immediately before him.

This quality was particularly in evidence with his almost ceaseless procession of callers. This stream might be made up, for example, of a member of the Faculty seeking advice about some new departure, a newspaper man to get his views on a recent piece of legislation, a janitor reporting on the making of some repairs as economically as possible, a senator from Washington paying a friendly call, a weeping mother praying for advice about her dismissed son, a member of the Corporation considering arguments to be used with some wealthy "prospect," a freshman stammering excuses for past misdemeanors, a professional Boston reformer begging the backing of his powerful name, an eminent economist from abroad expounding some new theory in a marvelous attempt at English, and a copyist tactfully suggesting that he translate some penciled hieroglyphics which he had dashed off while talking.

To each of these successive visitors he would give his seemingly undivided attention,—although he might at the same time be writing a letter and consulting, *sotto voce*, with some fellow officer of the Institute,—and he would make that caller feel that the particular matter which interested him was also the one thing in the world which most closely concerned President Walker. With a leisurely visitor, moreover, he seemed to have an infinity of time, never giving the slightest hint of being under pressure of work; though with chronic bores he had effective methods of "removal" acquired through years of bitter experience at Washington.

Another side of the picture is given by the following undated letter (though evidently written at the time of

one of William E. Russell's campaigns for the governorship of Massachusetts) to a member of his family:

Our new building still remains unfinished, in spite of all my struggles—I go over twice a day, partly to hurry things up, if I can, and partly to relieve my feelings! Perhaps you know what that is—at any rate, it gets me out of my office for a while—

Tuesday next we have our little election. It is probably too much to expect that Russell will win, though I shall cast one vote for him, while voting for the rest of the Republican ticket.

In Walker's daily life he exemplified the advice that he once gave to a then recent graduate, now President of the Boston Young Men's Christian Union, Col. Locke:

. . . I will tell you something which is of far more importance to you than any specific suggestion I can make. Always, wherever you are working and whatever you are doing, try to do the job a little better than the Boss expects you to; there is always someone looking for that kind of man.

Professor Henry C. Adams wrote in 1901:

. . . I know of no person for whom I had a keener regard than for General Walker. He did a great deal for me when I was a young man, not that he tried to be of any formal assistance, but his attitude toward all things was so manly and fair and his willingness to discuss any difficult points of economics made him an inspiration to me. Especially am I grateful to him for refusing to approve a paper I handed in when a student at Johns Hopkins, for I gained a higher standard of literary and scientific excellence than I had when the paper was handed in.

In this connection the following three letters, written to one of his sons, are to the point:

March 30/89.

. . . Promotion never comes to a man just when he expects it—generally later, sometimes, tho' rarely, earlier—It is almost a matter of necessity that every young man should, at some time, feel that he is dragging behind, losing time & failing to get his rights.

I well remember Sprigg Carroll coming to me in the winter of 1863-4 with his resignation written out, & demanding its immediate acceptance.—He said he had been treated shamefully, had been three years a colonel, without promotion—his regiment only numbered a hundred men for duty, & he wouldn't stand it.

Anybody could command 100 men: if he wasn't fitted for anything better, he wished to go back to his company in the regular army—at Governor's Island, N. Y.

All this was true enough, & it was as much as I could do, to stop him. Finally Hancock & Meade smoothed him down, & got him to withdraw his resignation.

We crossed the Rapidan May 4. May 6, at evening, Gen. Grant telegraphed to the President "Gen. Hancock reports that Col. S. S. Carroll, 8th Ohio Vol., has this day saved the left wing of the Army of the Potomac. I request his immediate promotion to be Brig. General."

On the 13th of May, Carroll was wounded at the head of *two* brigades, for which he was retired with the rank of Major General for life.

But I didn't mean to preach.

Boston, March 31, 1889.

Granting that there is no adequate prospect before you . . . it does not follow that you should leave the service in which you have been engaged three years, and in which you have certainly shown much capacity. It seems to me that the matter should be very carefully and deliberately considered, and not decided in a panic. There are certainly a host of well paid and responsible positions in the railroad service. . . .

It is not easy for a young man to place himself here

at the East. . . . Hundreds of young men of good families and education are trying to get money enough to earn their board. Good positions are not to be picked up in the street; and a man has three chances to better himself who is actually at work at the time, doing something well and having the confidence of his employer, to one chance which falls to a man who is out of a place, or who has given up one line of work without having something else definitely to resort to. . . .

The railroad business of the country is now in a perfect chaos; men are being discharged; force is being reduced everywhere; and it is probable that a considerable part of all the railroad capital in the country will absolutely and finally lose *all* its value; but after all this, there will still remain 150,000 miles of railroad which have got to be operated, nearly a million of men have got to be employed in doing it, and thousands of able men have got to be employed at high salaries, to superintend it and conduct the work—men who have been in the business and know about it, who can handle a working force, who can keep accounts and bill freight, who have heads for getting business and handling it, are going to be just as much, and even more in demand, after the crash is over as even in the past.

Dec. 6, 1889.

I have been having a beastly bronchial affection of the throat these many weeks, never bad but not getting well. It was all on account of the everlasting talking I have to do: no let up, no mercy shown—never a day of rest. I wish I could go into a deaf & dumb asylum for a few weeks, & have a chance to brace up.

I am much interested in your accounts of your life & work, as I read them in your letters. . . . If you are not wearing yourself out, it seems to me that you are going through an experience (not amusing in itself, I daresay) which must be fast fitting you to take positions of responsibility & authority.

I know of no one whom I consider as having, on the whole, a better head than yourself for business, so far as the doing of things is concerned—when it has been once decided that they are to be done. What any man of your years must lack is the sense of proportion, the knowledge of conditions, the experience of similar things successfully done in the past, to make him sure that the thing under consideration is the right thing to do. It seems to me, I say, that in your present work you must be undergoing a very useful training in these respects.

Self-confidence you are deficient in, naturally: but self-confidence will come as the result of success. Natural self-confidence, *videlicet*, brass, is a source of as much weakness as strength. Self-confidence which is acquired as the result of successful work is all good & no evil. Mr. — represents the natural self-confidence which takes a man up early & carries a certain way & then,—drops him. The other self-confidence gives a man a later start, but it carries him further, & keeps him going to the end. It does not fail in the pinch of things, but is at its height in emergencies. I appreciate how much you suffer from lack of natural self-confidence: but I am sure that, if you go on in the spirit you are now showing (& keep your health), you will rapidly acquire that other kind of Assurance, which is not Brass, and which makes a man largely master of his fate.

Another fundamental source of Walker's influence was his generosity in giving credit to others. As already intimated, he was more than scrupulous in the courtesies of social intercourse. He was also most careful to acknowledge indebtedness to his associates in any joint work, and he never failed to make clear at all times that the growth of the Institute was due, not to him, but to the unselfish labors of his colleagues.

His relations with the instructing staff were, with the elder men, those of a somewhat punctilious brother,

with the younger, those of a rather austere father. His army experience had made too profound an impression for him quite to forget the attitude of the senior to the junior officer. Moreover, it had become his settled habit to cover his incurable shyness by a slight formality of bearing. He was too much the gentleman ever to be "hail fellow" with any one; but he possessed the far more valuable and lasting quality of sincerity of manner and singleness of mind and heart, which conveyed to those about him the assurance that here, indeed, was a true and dependable friend. Alfred E. Burton, for many years trusted Professor and beloved Dean at the Institute, writes:

General Walker, more than any other President we have had, tried to keep in touch personally with the instructors and their work, and made everyone feel that he was watching their progress, and was interested in every development. A young instructor always felt his loyalty to the Institute increase by every personal word of encouragement that he received from the General, and it had much to do with keeping the young men from leaving for more profitable lines of engineering.

Ex-President Hadley of Yale states, concerning General Walker's friendship, which he first experienced in 1885, that he

feels that he owes more than he can possibly tell to Walker's wideawake interest in the work of the younger economists. "General Walker was one of the four or five who had the greatest influence on my life and thinking." This was largely through casual conversations in Walker's home—Walker's ways of looking at things.

He remembers one conversation, in the spring of 1886, which was characteristic of the whole. The Knights of Labor were then at their height. Walker said: "You are making a great mistake to treat this sort of thing as unprecedented. I do not criticize you for doing so. It is

right and natural that you should. I criticize men like (giving names of three economists). They have lived through other such crises and have forgotten them. When, ten or forty years hence, you find yourself in the midst of labor troubles that upset everybody's judgment (because they have forgotten like troubles in the past), you tell them that you were upset yourself once, and that an old fellow named Walker, who was not much good as an original thinker, but who held on to facts that other people had forgotten, told you that, if you were wise, the next time you lived through a crisis of this sort, you would not make the mistake of thinking it was unprecedented."

One great advantage that General Walker had as a guide to younger economists was that he never was scared.

Possibly the greatest source of his personal power, —a power that one really must have experienced to understand,—was the fact that he was deeply and genuinely interested in his fellow-men. He loved children and knew how to make himself the real playmate with them; he had an almost yearning interest in young persons that they should get the most out of this wonderful gift of living; he suffered patiently even those closely akin to fools, because he believed that he could learn something from almost every one; and, while he was talking with this man or that, who might have come to him for advice, he put himself for the time being into the position of that interlocutor, and sought with him the best way out of his perplexities.

A tableau associated with a certain hot July night, while Walker was spending the summer at Belmont, will never be forgotten. He was seated in a sort of improvised study, the perspiration streaming from his ruddy countenance, teaching the Constitution of the United States, in a most charming sort of infantile seminar, to a group of his own and his neighbors'

children, all in their early "teens." And he was doing it with the same earnestness and enthusiasm with which he would have presided over a great meeting of the scientifically elect.

It is related that, passing one day a Negro tenement in Washington, he caught a glimpse of a weeping mother bowed over a bare little coffin. He hurried to the nearest florist shop, returned with his hands full of flowers and, laying them on the pathetic casket, went away without a word.

It should be said, however, that General Walker was inclined to make a conversation with him rather too one-sided. He was so exuberant of speech, his mind was of such lightning quality, he was so eager to help, that he was apt to begin his part of the talking before his visitor had quite finished his. In this he somewhat resembled Roosevelt, who, it is alleged, summoned a distinguished person from Chicago to Washington, for the purpose of advising the President, himself talked ceaselessly for three hours, giving his visitor no chance to utter a word, and then thanked him profusely for the great help and comfort that he had derived from this wise counsel from the West.

President Walker had too keen a sense of humor to make such an error as that; but he did rejoice in thinking aloud, and he talked so rapidly and talked so fascinatingly, that many a visitor must have departed wondering if he had actually placed his whole case before this brilliant adviser, and whether the precious counsel which he was carrying away might not be in some degree vitiated by the fact that General Walker was not in full possession of all necessary data. This facility of informal speech, together with the encyclopædic range of his information, sometimes led him, of course, into the error of giving what seemed at

the time to be a comprehensive lecture, rather than a simple answer to a single question. Even the most impatient listener could not fail, however, to be stimulated and instructed.

To see Walker at his office in the act of dictating a letter, or of preparing a public address, was to witness the full tide of his nervous energy. Usually, on such occasions, he paced up and down with quick, short steps, twisting his hands together behind his back and speaking rapidly, but with careful choice of words.

His secretary notes that

I have seen him come into the office in the morning, and before he had taken off his overcoat he would say (his mind was so full of his subject) "I want to write a letter to the New York Evening Post. There was a letter in it last night," etc., and an answer would be dispatched at once. . . .

At his house, however, where much of his dictating was done, he was accustomed to sit in an easy chair, smoking (he was scrupulous in denying himself cigars, of which he used fearfully strong ones, at the Institute, because of possible bad example to the students). While apparently resting, he would so arrange the sentences in his mind that he would then utter them with great fluency. Sometimes he would vary the procedure by playing solitaire while talking to the note-taker; and when at Intervale, he was accustomed to sit by a window, watching eagerly the games of tennis and calling the score, while at the same time dictating steadily to some member of the family at the typewriter. It is recorded that on one of his journeys to the Pacific coast, he dictated the substance of some book or course of lectures all the way across the Continent.

General Walker almost always suffered from initial nervousness when he was called upon to speak extempore. His family testify that he greatly disliked after-dinner speaking. When he knew he was expected to speak, he dreaded it so much that it made him miserable for days beforehand. At such times he would say with great vehemence that he thought speech was the *meanest* faculty of the human race, and that it would have been better for us all if we had been born deaf and dumb. The dinners over which he came home full of enthusiasm were those where he was not called upon.

Professor Talbot quotes Dr. Drown, his predecessor as head of the department of chemistry, as having told him that once, when Walker had made some very striking addresses, Drown congratulated him on his ability to do that sort of thing without apparent previous effort; to which the General replied: "You don't know what you are talking about. I have walked the floor for hours with those speeches." Dr. Talbot transmits from Professor Drown another anecdote, of which Walker would have been the first to see the humor:

. . . Necessity forced us to convert what was originally a part of the corridor at the head of the stairs on the fourth floor of the Walker Building into a Combustion Room. The partition which ran along the rail was one of matched boards and not particularly ornamental. . . . On one occasion the President was walking about with some visitors who were common acquaintances of himself and Dr. Drown. As they came out into the hallway of the fourth floor where this new Combustion Room was visible, General Walker began a sort of exposition on the subject of the Combustion Room, the trend of which was its glorification. Whereupon Dr. Drown said, "Why, General Walker, you said the other day that that looked like the devil," to which the President promptly replied: "The language is mine, but I don't recollect the occasion."

The specific events of the last ten years of President Walker's administration, while of vital importance at the time, are now too far away for present interest. Each of the many changes and developments which, with the aid of his colleagues on the Faculty and Corporation, he brought about, was a distinct, and usually a vital, factor in the task of broadening, strengthening and consolidating the Institute of Technology; but all of them were long ago fully woven into the fabric of the institution or, with the growth of science, have been superseded by better things. A minute chronicle of them, therefore, would serve no useful purpose.

By 1889, the heavy debt on the "New" building—subsequently named the Walker Building—had been paid off, additional land on Trinity Place had been purchased, and an Engineering Building which would permit, for the teaching of mechanical engineering, laboratory methods similar to those which had been so successful with chemistry and physics, was under way. By 1892 it was possible to begin a new building, also, for the department of architecture which had been theretofore confined to half of the attic of "Rogers." The Trinity Place group having now been sold, and the rest of the Institute having been moved to its conspicuous site on the western bank of the Charles River Basin, the architects, at present, entirely fill "Rogers."

Referring to the Trinity Place building, President Walker wrote to one of the family, on September 25, 1892:

We are trudging on here, much as usual. The little boys have begun at the Latin School and are busy with their declensions. At present there is no football to interrupt; but I suppose in two or three weeks their minds will be more on rushes and dodges and kicks than on

genitives and ablatives. Etheredge began well by getting a certificate of merit the first week. Stuart had forgotten something or got it wrong, so that his certificate was conspicuous by absence.

Our architectural building is approaching completion. It is a very comely building, holding over the Engineering building to a considerable extent. Yet, on the whole, harmonizing well with it. The architects are going to be as proud as peacocks. Some very nice hardwood cases have been made for their museum of building materials, their books and photographs; while a great deal in the way of casts and pictures which has hitherto been laid away out of sight has been hung upon the walls, making a gay, if not giddy appearance.

In 1888, a course in Chemical Engineering was added; in the next year, Sanitary Engineering was set up as a separate course; in 1890, Geology was given autonomy; and in 1893 was established the course in Naval Architecture which subsequently brought the Institute into such agreeable relations with the Federal Government, and which now has its own magnificent building, the Charles H. Pratt School of Naval Architecture and Marine Engineering. How confident President Walker was of the increasing value to the Country of those and of the older departments of the Institute, how sure he was that the progress of the school would be, as it has been, almost phenomenal,* is prophetically voiced in the following from his report as President made at the annual meeting of the Corporation in December, 1894:

*	1881	1897	1922
Number of students.....	302	1,198	3,505
Number receiving degrees.....	28	179	560
Number on teaching staff.....	38	156	375
Current income	\$72,600.00	\$ 327,000.00	\$2,012,000.00
Endowment fund	137,000.00	1,798,000.00	15,786,000.00
Value of bldgs. and equip. ...	492,002.00	1,026,566.00	11,434,460.00

. . . It is not infrequently the fate of those who have led in reforms to be sacrificed to the very greatness of the success achieved, to be buried under the mighty pile whose foundations they laid deep under ground. It is, indeed, a law of social life at which we may not repine, that the laborer of the eleventh hour often reaps an equal reward with those who have borne the burden and heat of the day; and we might, therefore, not unnaturally have looked to see, in the general, the almost universal, adoption of the methods of laboratory instruction and practice first developed here at the Institute of Technology the beginning of a decline in the relative importance and influence of this school. But such a result I, for one, do not anticipate or fear. The greater and the more widely spread the desire for scientific education, the greater, I believe, will be the need of an institution which is prepared to lead in the development of such instruction; the larger will be the constituency to which the Institute of Technology will appeal; the more numerous will be the young men who, having made up their minds to seek such instruction, will determine to get it in its highest and best form.

While the institutions which are so rapidly taking up the methods of scientific and technical instruction do well thus to answer the demands of the age, they cannot hope at the beginning to afford their students all, or nearly all, the advantages and facilities which in the older schools of science and technology have been the accumulation of many years, or are the fruit of careful study and long experience. Much of this can be transplanted; much of it cannot. Scientific and technical schools can no more be improvised than can universities and schools of classical culture. More than one first crop must be "ploughed under," in experiments upon the adaptation of the soil and the climate to the seed sown. Even when a moderate degree of success has been attained, it still remains for time and experience to perfect the system. . . .

For these reasons I have no fear of any decline in the relative importance or influence of our school. There will be as much need of leadership in this department of education as ever, even as in the early days when the Faculty

of the Institute of Technology first developed the laboratory of General Chemistry, the laboratory of General Physics, the laboratory of Economic Metallurgy, the laboratory of Applied Mechanics, and the laboratories of Steam, Hydraulic, and Electrical Engineering. And the more highly the educational value of scientific study and practice is appreciated the land over, the larger, and not the smaller, will be the number of those who will desire to obtain that instruction and training under the very best conditions.

In the same report, he jubilantly remarked that "the battle of the new education is won"; but he did not, of course, add, as well he might have done, that he had been in the forefront of that contest and had proved himself one of its most effective champions. Professor Burton, from whom quotation has already been made, adds this concerning some of the outstanding matters of that time:

President Walker was actively interested in the inauguration of the summer schools for instruction in Geodesy and Topography. These classes started in 1887 and were optional, and continued until they were supplanted by the required optional summer school held at East Machias, Maine. President Walker felt these schools were of sufficient importance to ask me to give talks on them before the Society of Arts, and would not hear of their discontinuance, even if some of the instructors were unavoidably absent. I remember particularly one year when I told him that I was obliged to be away for one whole summer and could not take charge of this optional school for that year, he said, "The school is advertised in our Catalogue and I intend that every subject which we advertise to give in our Catalogue shall be given if it is a possible thing. If you cannot go we will secure somebody to take your place." It was characteristic of him to be sure that we lived up to every published statement.

General Walker was heartily in approval of the Insti-

tute custom of not grading graduates at the time of receiving their diplomas. No one should know whether he stood at the head of the class or not. He also discouraged the giving of the honor mark, this seeming to him to be simply an incentive to work for marks, and he heartily believed in the abolishment of all graded punishments, such as are given in many colleges: stages of discipline, rustication, suspension, etc. If a man was worthy of punishment he should be sent away, and his possible return left for later determination.

President Walker and Professor Burton had other bonds besides that of the Institute, for both (the former as one of the Commissioners and the latter as Chief Topographer) were deeply concerned in the topographical survey of Massachusetts, which was one of the best accomplishments of its kind. The General, from his military training, was keenly interested in map-making, and gave much time to the questions raised during the progress of this survey and in the preparation of its beautiful series of maps.

President Walker's general attitude towards the teaching of science is summed up in the following extract from a letter printed in the New York *Evening Post* of June 24, 1891. This is evidently in reply to some earlier communication:

You say that "among the essentials of the relation of scholar and teacher are that the scholar shall feel that he does not know and that the teacher does know." Excuse me if I say that, while this is doubtless a correct characterization, so far as the classical colleges are concerned, the most successful teachers of science are those who put themselves in the attitude of studying with their pupils, and of finding out, with them, the objects of their common search. Indeed, it is said, that Socrates himself used to employ this method. So far as political economy is concerned, I do not think anything is to be gained, in the way either of discovering the truth or of

commanding popular respect, by the teacher pretending to know anything he does not, or even concealing the fact that he is still, on this or on that point, in uncertainty, perhaps in perplexity. It is a sad truth that the airs of the political economist no longer impress the public mind, and that the writer on money, or wages, or taxation must rely for the main effect he would produce upon the force and reasonableness of what he writes.

Professor Chittenden, of Yale, calls attention to the service of General Walker, in the last years of his life, on the "Committee of Fifty," appointed from all over the United States to make a study of the liquor problem, essentially from the point of view of sociology. On this body he was chairman of the sub-committee "on the relations of the liquor problem to economic conditions, poverty, and crime."

Walker himself used alcohol with great moderation, and was keenly interested in reducing the dreadful wreckage resulting from its unwise use. He was particularly concerned in the question as it affected young men. Professor Chittenden contributes the following:

Having asked President Walker why our New England ancestors had such a craving for rum, he replied, "Chittenden, I think the reason is this: Those people lived on hard, indigestible food—fried, etc. Rum was simply a means of digestion."

For quite a number of years, Walker was one of the trustees of the Foxborough State Hospital for dipso-maniacs, and followed its results closely, both as humanitarian and as statistician. There is reason to believe that he was not encouraged by the effects of restraint upon confirmed alcoholic patients.

Walker's views on smoking are indicated by the following letter to one of his sons:

I am truly sorry that you have had to go through so much of a strain on your feelings; but let me tell you that there are few young fellows of much sensibility, who have not at times felt as if the earth was iron beneath their feet and the heavens a brazen wall, and not a friend in all the world to care for them. Either, things turn out better than they think at the time possible; or else, this very experience passes into character and makes them better and braver and stronger men than they were before. . . .

I am rejoiced to hear that you think of leaving off tobacco—I hope you will—I didn't smoke in college or in the army, or until I was about 35; I am satisfied I enjoy it vastly more now, with vastly less of ill effects than if I had stuffed my veins and bones full of it when I was young.

CHAPTER XXI

ATHLETICS AND AUTONOMY

WALKER's fundamental thesis, especially in dealing with young men and women, was so to train them that they could be counted upon to govern and restrain themselves without need of statutory or police regulation. He looked upon education as a force that may be safely counted upon in the long, slow process of bringing humanity up to higher levels, and he was impatient of any substitutes for that sound education which makes for individual thinking, personal self-respect and unsupervised self-control. The following extract from a graduation address to his students at Technology gives the keynote of his attitude towards growing youth:

I cannot sufficiently congratulate you that you have taken the morning of life, while the heart is buoyant within, the limbs stout and active, and the air around fresh and fragrant, and the sun is yet low in the heavens, to make so strong and stalwart a beginning of your journey. I cannot believe that, as you pause on this eminence, here on your graduation day, and look back and down upon the camps of those who have not yet girded themselves for the march, but are still resting in the comfortable belief that it will do as well to begin life in earnest at twenty-one or twenty-five, you are at all disposed to regret your own early start and the manful exertions to which you have given the dewy hours of morning.

He frequently used the phrase that the Institute of Technology was designed as a "place where men went

to equip themselves for life-work, not a hospital for the treatment of mental weaklings." As Professor H. W. Tyler, now head of the Department of Mathematics at the Institute, justly says: *

His own intense activity and his insistence upon earnest work have at times exposed him to misconception. . . . He was sensitive, almost to excess, on the subject of mental overwork by students. The faculty of the Institute sets a definite, well-understood limit to the work to be required of any regular student in any term. Time and again he took pains not merely to enforce this rule, but to call the attention of overzealous teachers to its importance. Time and again he cautioned students against attempting even so much, if beyond their strength. Quality of work, not quantity, was his requirement as it was that of the faculty. The fact that Institute students are thrown so fully on their own responsibility makes it possible for some to overwork, for others to neglect their work; he desired as little the former result as the latter.

Because he believed that manliness, self-reliance and both quickness and independence of judgment are greatly fostered by sane athletics, he early addressed himself to the problems of sport and other student activities at the Institute. It was due to this fundamental creed of his, also, that he decided, when invited to give the Phi Beta Kappa address at Harvard, in 1893, to run the risk of scandalizing the more academic members of that body, founded for the promotion of classical scholarship, by choosing as his topic, "College Athletics." Yet few things have had greater and saner influence upon the development of rational college sports than that much lauded, and also much condemned, address.

In it he draws at the outset an amusing picture of the period before the Civil War:

* *Educational Review*, June, 1897.

The college hero of those days was apt to be a young man of towering forehead, from which the hair was carefully brushed backwards and upwards to give the full effect to his remarkable phrenological development. His cheeks were pale, his digestion pretty certain to be bad. He was self-conscious, introspective, and indulged in moods as became a child of genius. He had yearnings and aspirations, and not infrequently mistook physical lassitude for intellectuality and the gnawings of dyspepsia for spiritual cravings. He would have gravely distrusted his mission and his calling had he found himself at any time playing ball. He went through moral crises and mental fermentations which seemed to him tremendous. From the gloomy recesses of his ill-kept and unventilated room he periodically came forth to astound his fellow-students with poor imitations of Coleridge, DeQuincey, and Carlyle, or of Goethe in translation.

Not all college heroes of those days were of this familiar type. Sometimes they were thunderous orators, more Websterian than Webster, who could by a single effort lift themselves to the full height of perorations which in the senate or the forum are the culmination of great arguments and of many a passionate appeal. Sometimes, though more rarely, the college hero was a delightfully wicked fellow, who did, or at least affected to do, naughty things, wrote satirical verses, was supposed to know life, and in various ways exerted a baleful fascination over his fellow-students.

He then points out the striking change which, in thirty years, had come over the American people in regard to the human body, and draws careful distinction between gymnastics and athletics, and between excess and healthful moderation in the latter. He proceeds to extol sane athletics, first, because they "do wonderfully light up the life of our people"; secondly, because "admiration for manly prowess and the contemplation of fine physical development cannot fail to secure a much wider cultivation of gymnastics"; and,

thirdly, because "in the competitive contests of our colleges something akin to patriotism and public spirit is developed with results, on the whole, of good."

Continuing, General Walker argues against organized cheering, with which he never had any patience, maintains that entrants into athletics should be held to a reasonably high degree of scholarship, and asserts with much emphasis that athletics on any public scale should cease at the door of the professional school. He then mounts the customary rostrum of the traditional Phi Beta Kappa orator and, with a lovely slyness, intimates that, through athletics, the United States may ascend to the lost sublimities of Greece. Since the greatest of those who bear the name of artist "revered the human form, made it their chief study, and found in it their highest delight," so "the vision of the Apollo may yet rise to the view of thousands out and up from the arena at Springfield" [where the Harvard-Yale football game was then played] "as erst it rose before the thronging multitudes of Olympia."

Referring to his extraordinary personal interest in athletic contests, Miss Mary Ingersoll, who was of the party with which he went to Europe in the summer of 1894, writes:

With his wonderful mind, he had such a boyish nature. When we sailed in 1894, his only thought seemed to be to reach London in time for the Yale-Oxford game. We arrived two days before it, and he was in a state of excitement until the day came. Then, when Yale was beaten, nothing could raise his spirits. It was the same in 1896 when we went to the Henley Regatta. The first day Yale was beaten by Leander, and to Genl. Walker it was unbearable—he left at once and never went back to Henley on the two succeeding days where the rest of the party went and enjoyed it all. . . .

It is stated that long before he had ever seen a game of cricket, he became interested in it through reading the *London Times*. He knew the names and records of many of the more famous players, and whenever he went to England was eager to see a match at once. In an interesting letter from his nephew, Mr. Robert Batcheller, it is noted:

He was an enthusiastic attendant at college sports at home and when abroad if possible took in the university contests. Cricket in England interested him for years.

He followed closely the progress in the United States of our college athletics. He was up on all the records and no undergraduate could equal his power of analysis of this progress.

I recall his frequent predictions made in 1878-9 that in time Americans would equal and then surpass the English, who were at that time leaders in field and track sports as well as in rowing.

He felt that the good food and brisk atmosphere combined with the fusing of races in America would develop larger and swifter men—and so it has proved.

His almost boyish exuberance was a constant delight to younger men like myself, and deeply impressed one always.

He would hop off to a college football match or to a race at New London with all the gusto of a boy on a holiday.

While he was an eager and boyish onlooker, rather than a participant in manly sports,—for his weight and full habit made tennis out of the question, and golf in his day was almost unknown in this country,—his muscles were always in excellent condition, and he was extraordinarily quick upon his feet. This was dramatically demonstrated on one of the opening days at the Institute, when the traditional “scrapping” between the sophomores and freshmen went so far as to invade the wide entrance hall of the Rogers Building.

Hearing the commotion, General Walker rushed out of his office and, without a word, flung himself, seething with rage, into the center of the fighting mob, scattered the stalwart youths right and left with well-directed blows learned in his boxing days, and then, using forceful language reminiscent of the army, gave the rioters, aghast at this new aspect of their dignified and usually most amiable President, a lesson in college manners which they and their successors did not soon forget.

He had other and even more important lances to break, however, than in behalf of athletics. Throughout his presidency, he had to keep up what may well be called a running fight with those who were forever arguing that the training given at such schools as the Institute of Technology was not higher education at all, but was merely a material, "trade" preparation for the getting of one's bread and butter. One of Walker's leading antagonists in this long-standing dispute was Professor Shaler, of Harvard, who was in the habit of maintaining that, to deserve the name of higher education, studies in technology must be pursued under the ægis and within the control of a classical university.

In the summer of 1893, Walker writes to Mr. Scudder, relative to an article by Professor Shaler in the *Atlantic Monthly*:

The further I go with Prof. Shaler's article, the more clearly I see that my paper must be distinctly and in form *a reply*. It shall of course be courteous and friendly; but Shaler's points must be met and squarely met.

At neither the first nor the second reading did I apprehend the full reach of his propositions and sugges-

tions. Their "carrying power" is simply tremendous. The article is really an attack on all which this school stands for, and on the school itself, and on all schools of technology which are not in the embrace of a University. The greatest service we could do to the cause of education would be to disband.

Somewhere or other, I, as in a sense representing the "detached" schools of technology shall have to meet his propositions and suggestions very fully and frankly (tho' not at length; that is not necessary: my paper can be a short one). I should be glad to have the privilege of doing this in the "Atlantic," and I trust you will not deem this inconsistent with the generally peaceful and well conducted character of your maga.

In September, the *Atlantic* published a paper by President Walker on "The Technical School and the University." An excerpt from this has already appeared (page 230 *ante*); but the temptation to quote from it further cannot be resisted. Answering Shaler's charge that collegiate study should be "disinterested," General Walker says: *

The fling at technical studies as less "disinterested" than studies which are pursued without a direct object is one which has often been made in recent educational controversy; but those who use it have not seemed to me to show thereby their own superior liberality of mind. A young man who is faithfully seeking to qualify himself for an honorable and useful career in life may be disinterested in every sense in which that word can be used with approbation. Disinterestedness, in its true meaning, depends, not upon the studies pursued, not upon their immediate usefulness or uselessness, but upon the spirit in which the student enters upon and pursues his work. If there be intellectual honesty, if there be zeal in investigation, if there be delight in discovery, if there be fidelity to the truth as it is discerned, nothing more can be asked

* Discussions in Education, p. 46.

by the educator of highest aims. With such a student the useful applications of science distinctly add to the educational value of scientific study, inasmuch as they give a more direct object to his efforts and exertions, and heighten the pleasure he feels at each step of his scholarly progress.

Later in this forceful paper is found this:

Another advantage which Professor Shaler discerns as attaching to professional schools under the patronage of universities . . . may, perhaps, be expressed by the single word "atmosphere." That there is something in it no one will deny; but the utmost benefit which the students of a technical school can derive from this source may easily be offset, many times over, by disadvantages arising from other sources. . . . The best atmosphere for a student is that which he himself brings to college with him in his own energy, fidelity and scholarly zeal; the next best atmosphere is that created by learned, laborious, and high-minded teachers; the next best, that created by a body of devoted fellow students, all intent upon the work of preparation for life. Loafing in academic groves or browsing around among the varied foliage and herbage of a great university, pleasant as it may be, and well enough in its way, will have little effect upon the making of the man, in comparison with influences more serious, more pervasive, more penetrating.

To this should be added an extract from his message sent, in December, 1892, to the Legislature and Citizens of Montana concerning a projected State university:

. . . Speaking broadly, it is beyond cavil true that a number of schools will be stronger, when grouped together and administered as a whole, than if they were to be placed apart and each governed by itself. It is also unquestionably true that, to a certain extent, a saving in effort and money will result from the fortunate grouping of several schools in one large institution. . . .

On the other hand, it is not impossible that, in such a grouping as is suggested, some of the schools, if not all

of them, will have to make concessions that will be more or less in the nature of a sacrifice. If, for example, your projected university were to be at a distance from the mining regions of Montana, it is not at all improbable that the proposed mining school would lose more, through the lack of opportunities to witness extensive mining operations in actual progress, than it would gain by association with other schools.

Again I, for one, would rather sacrifice a good deal in the way of pecuniary means, in the case of a school of industrial science, than have it placed in unsympathetic hands. I speak with perfect frankness. I would rather take my chances of building up a good school of chemistry, physics and engineering by starting it in a barn, with men who thoroughly believed in that sort of education, than open such a school in the largest hall of a prosperous university under men who in their hearts believed only in the old education, and looked on chemistry, physics and mechanics as studies perhaps necessary and useful, but less fine, high and honorable than classics, metaphysics, dialectics and rhetoric. I am not speaking without a reason and a purpose in saying this: The chief cause of the comparative failure or the painful shortcomings of many of the scientific and technical schools which have been started since 1862 has been unsympathetic management by men brought up under the old educational system, who could not lift themselves to a proper appreciation of the new. There is always a certain degree of risk in putting scientific education out to nurse with those who have not the deepest and strongest interest in its success.

Champion though he was of the educational value of what are sometimes contemptuously called the "bread and butter studies," President Walker was most insistent upon the value, as the basis of a successful and happy career, of what he calls the "philosophical" studies. In his president's report for 1894, he said:

Merely for business success, in the most distinctly technical profession, philosophical studies are of great

importance. In none of the higher walks of life does it ever cease to be more the question how much of a man one is, than how much he knows of his special business. And this is even more distinctly true in the engineering profession, for example, than in the law. A great lawyer is generally a great man, but he need not be. There is a melancholy abundance of instances to the contrary. But a great engineer must be a great man. All great engineers, according to the testimony of those who knew them, have been great men.

My contention is, therefore, not against the introduction of liberal studies, upon the most liberal scale, whether for cultivation or as a means to subsequent professional success, but only against the assumption that liberal studies must, to secure the best effect, be pursued with a special degree of liberty of choice and with leisureness of effort. On the contrary, I should be disposed to hold that liberal studies should be severely pursued; and that, for the highest results, the more liberalizing the tendency of any intellectual exercise, the more it is to be desired that it should be followed out with energy, with closeness of application, with punctiliousness of performance, with careful scrutiny of the results obtained.

In this connection, the following extracts from letters to his son, Francis, are of particular interest. On October 16, 1895, he writes:

The very worst impression a young man can make is that of uneasiness in his work and dissatisfaction when he is getting on reasonably well.

On March 31, 1896, he writes (Francis was then teaching in Colorado):

It is not at all a matter of regret to me that you should have been obliged to spread yourself so much at the first. It is a capital thing for you to teach history and economics, and this and that, for a while. Such an experience will always give you an intelligent sympathy with the men who are working in any of those lines. . . .

The following letter, which will find a sympathetic echo in the breast of every college official, is dated May 19, 1896:

Between ourselves, the fact is, there are lots of people who are very much interested in young men and exceedingly desirous that they should be helped through college; but they expect that the poor colleges are to do it, and not themselves. The number of people who are deeply interested in the Institute of Technology giving scholarships to some poor Armenian, or to some other deserving fellow, but who never think of putting their hands in their own pockets to help themselves, is painfully large.

The excellent advice of the succeeding letter, with which he sends a desired book, has a date less than a month later:

I should say that it would be a very good thing for a teacher and writer on political subjects, in these days, to make himself pretty familiar with the outlying countries and outlandish people; to be "well up" on the steppes of Russia, and the great central desert of Australia; to keep up with the progress of colonization; and to have the latest news from Pretoria.

If you feel any disposition toward this and I can help you, I should be glad to do so. Possibly I have other books which might be of interest in telling your students and your public about such matters. I should think that, when you are a little more at leisure, you might get some good practice, and perhaps a few shillings, by writing short descriptive or historical articles, in such lines, for your local paper; but you have too much to do for that now.

Less than a year before his death, he uttered, at a Technology Alumni dinner in New York City, the

following pregnant words which might well be adopted as the *credo* of the Institute:

The Massachusetts Institute of Technology, as you know, gentlemen, was founded upon several fundamental and far-reaching beliefs.

First, a belief in the essential manliness of young men, a belief that, if they are properly appealed to, if they have presented to them subjects deserving of their attention and best efforts, they will respond in the spirit, not of trying to find how little they can do and how poorly they will be allowed to do it, but how much they can do and how well they can do it.

Secondly, a belief that the study of scientific principles, directed straight upon practice of a worthy profession, constitutes the best kind of education, that education which leads to the most fortunate development of intellect and character, of mind and manhood, altogether in addition to its merits as a preparation for professional success.

Thirdly a belief that scientific principles, acquired in the recitation and lecture room, should be constantly applied in field and laboratory work. It was this conviction which at the outset dictated the foundation of the laboratory of general chemistry and the laboratory of general physics, of applied mechanics, of metallurgy, of steam, and of hydraulic and mill engineering.

Fourthly, a belief that, in addition to scientific and technical studies and exercises, which tend to make men resolute, exact and strong, there should be given, in every such school, at least a moderate amount of those philosophical and culture studies and exercises which tend to make men also broad and liberal.

CHAPTER XXII

A DEATHLESS MEMORIAL

THE time has been reached when, all unsuspected,—though the fear of it was never absent from those who were following his too strenuous labors for the public service,—the over-worked body and the over-stimulated brain were suddenly to give out. In the fall of 1896, he was fearfully tired, despite the semi-relaxation of the journey to Europe already noted. Moreover, and perhaps for the first time in his life, he was fully conscious of this fatigue, as appears both from the sad letters to Mr. Shaw in Chapter XIV and from the following, of November 25, 1896, to Mayo-Smith:

You are very kind to invite me to dine with you after the meeting of the Census Committees on the 2d. I am ashamed to say that I am going to do a very mean thing and cut the meeting. I feel very sorry about it; but I do not see my way to any other course. I have got to start, Sunday night, for a trip into the wilderness of Northern New York, which will take nearly twenty hours. If I go from there to New York, I have another twenty hours of travel, and it would then be necessary for me to take the night train for Boston, as I must be here for duty Thursday morning. All this would involve traveling on the cars three nights out of four. I do not, at my age, and with my exceeding liability to take cold under such conditions, feel that it is safe for me. Dewey will go down. He knows my views perfectly. I think there will be enough members on hand to make a good meeting. I shall not write to Falkner, telling him that I have flunked, until the last moment. Think as well of me as you can.

That journey, to speak at some "dedication," was most ill-timed. The weather was phenomenally bad; the difficulties of traveling were unusual; and, as he says, he easily took cold. He returned completely used up; yet he would not give in, but continued his daily round of work at the Institute and attended a meeting of the American Statistical Association at Washington. Returning therefrom seemingly in fair health, without warning, almost without a sound, in the early morning of January 5, 1897, he died of apoplexy. As he had said of his equally great predecessor, President Rogers: "'Dying in harness' had for years been a favorite phrase upon his lips; and at the last he died, a good knight, indeed, full panoplied and at his post."

Miss Holt writes:

He had been in Washington the latter part of December and the first day he was at the office he inquired about some manuscript I had been copying for him while he was away, and asked me to bring it in the next morning (this was in the afternoon); then he said "good-night" or "good-bye" in his pleasant way and went out. I never saw him again. . . . He wanted to "die standing" as he expressed it, and he got his wish. He dreaded the growing old, the weakness and the feebleness of age. His belief in the continuity of life was indicated in a letter written in answer to a pamphlet sent him, in which was given a new theory of the nature and purpose of Sleep.

This interesting letter of Walker's, dated December 18, 1896, follows:

I did not intend to let your very kind letter remain so long unanswered, or your charming little book on Sleep, so long unacknowledged. I have been tossed about on the waves of my annual report; and the sea is only just now beginning to go down. I have read your work with very great interest and pleasure, being continually

reminded, as I read, of the old classic essays of England and France.

Of your fundamental thesis I am very little qualified to offer an opinion of any weight. There are many reasons for this; but perhaps I had better confine myself to one, in this, following the line pointed out by the justice upon the bench to whom a counsel learned in the law was about to offer thirteen reasons for his client's absence on a necessary occasion. No sooner had his first reason been announced, as the death of the person in question, than the judge declined to go into the questions remaining.

That which puts me out of court on an issue like that you have so strikingly raised is that I am, and always have been since a small boy at college, a unisubstancist. The duality of mind and matter is to me simply unthinkable. I only know Force, in its infinite variety of manifestations, from the thought of the poet to the energy of the coal in its deep bed beneath the mountain. This, to my mind, does not affect the question of continued existence after so-called death, since force is eternal, and all its modes of working are mysterious, while many are far beyond our senses.

In holding this highly heretical opinion regarding the nature of man, I am, as you will see, disbarred in any court where the distinctions between body, mind and soul are treated as essential. Nevertheless, if I am allowed to assume the point of view which you have occupied with so much of grace and strength, I would say that, whether or not the primary object of, or the reason for, sleep, is rest and refreshment of body and mind, the so-called spiritual advantages of sleep are most important, and you have stated and illustrated them in a way to carry my mind far beyond any view I have ever yet taken on the subject.

I have always believed in unconscious cerebration; and have attributed much value to it. Surely, if we can work out a problem in geometry during sleep, there seems no good reason to question that all that part of our nature

from which come our affections and aspirations may have a corresponding activity, without our being conscious of it. If this be so, the fact, on which you dwell so strongly, of an eight hours' release from all that is shabby, mean, degrading, irritating, and defiling in our environment and our ordinary routine of life, must give to those activities of our nature a freedom, a force, an ideality, a range, perhaps also inviting objects and ends, unknown to the waking life.

I confess that it would require a great deal to convince me that the primary object of, or reason for, sleep is not the rest and recuperation of the nervous system. But it seems to me that the considerations which you adduce regarding the moral and spiritual benefits which accrue from sleep are equally valid, significant, and important, whether this be so or not.

Nearly ten years earlier, he had written to his old friend, "Kate" Dana, who was then Mrs. Strong, a letter of condolence on her father's death, in which he said:

. . . When old age comes on so gradually, leaving the mind bright and clear, it is almost impossible to realize what it is doing to the lives of those we love. My own father was in his 77th year when he died, yet I had never come to think of him as an *old* man, and I could see no reason why he should not live ten years or longer. But the end came instantaneously and without premonition. Nor is it, dear Kate, a subject, really, for regret that something should seem to be cut off that would have been precious to us, and which we feel we might have been spared.

The terrible risk and price at which life is prolonged beyond a certain point, the danger of senility and painful decay, are not worth taking, or paying, for the comfort of a little longer companionship. There is nothing so beautiful as a good and gracious life ended in the full possession

of intellect, courage and cheerfulness. It becomes a treasure of increasing worth as the years go on. But a protracted period of helplessness, peevishness, insensibility, senility is the severest trial which human affection can bear; and, while human affection will triumph in bearing it, the retrospect through the long subsequent years is painful and increasingly so.

I have always felt that my father's going was as lovely as it could have been, and I feel sure that it was best that, at his age, your father should leave behind him that bright image which will always stand for him in your memory and will grow ever brighter as time wears on. And yet, for all our philosophizing, that is a strange and awful moment—leaving affection out of account—when the last surviving parent falls away, and leaves you face to face with the world, as, in spite of years, experience and other friends, you never were before. It is like the front-rank man being shot down, leaving you to confront the enemy alone.

No matter what we puritans and independents may say, the notion that the father is priest and represents his family, in the presence of God or fate or nature, or whatever you may call it,—answers for them, takes their punishment, atones for their errors,—is native and ineradicable in the heart of man; and when, for the first time since consciousness began, one finds himself face to face with destiny, without a parent to cover his shrinking form, *then*, indeed, life may, in a large sense, be said to *begin*.

All that you say of your father's life and character is eminently true. I always remember him with singular vividness as he used to stand in the back parlor in the old Henry St. house, when I was a college chap. I do not think of him as bowed and worn.

Therein he wrote his own best epitaph: THERE IS NOTHING SO BEAUTIFUL AS A GOOD AND GRACIOUS LIFE ENDED IN THE FULL POSSESSION OF INTELLECT, COURAGE

AND CHEERFULNESS. That was his life and that was his end. Immeasurably as the Institute of Technology, and many another good cause and institution, suffered by his untimely passing, he had lived the rich life of a hero, a builder, a champion and a prophet, and is, therefore, still vivid in the numberless great works and careers that he inspired.

It would be easy to compile from hundreds of chronicles an extended story of the solemn pomp of his body's progress to the grave. But the single picture that will ever remain with those who were there was the coffin borne on the stalwart shoulders of his beloved students, up the aisle of Trinity Church, between serried ranks of weeping men and women, especially young men. In the truly reverent and genuinely sorrowing congregation were representatives of all manner of organizations, of all types of citizenship, and to each such group Walker's life had meant something special, something forever valuable.

There was perhaps a shadow of truth in President Walker's statement once made to President Hadley: "It seems to me that Bryce's 'American Commonwealth' is like me,—sensible rather than great"; but it was a glorified kind of sense which he possessed that, if it were indeed common, would regenerate the world. He was instinct with courage, both physical and moral; he was consumed with desire to be of service to his neighbors, to his country, to humanity; he held himself always poised, never, on the one hand, seeking comfortable refuge in the sloth of conservatism, never, on the other hand, wasting his energies in the vain restlessness of impracticable reform. As was remarked by some one at his funeral: "He was a laborious friend."

Sir William Mather, one of the earliest English advocates of industrial education, said of President

Walker—and, alas, under our political system seemingly designed for the elevation, except by chance, of the mediocre, how vain his wish!—

From the time I had the honor of his acquaintance, he appeared to me to be the ideal citizen best fitted of any man I knew, or had read of, for the high position of President of the United States.

Professor Alfred Marshall, another of the large group of eminent Englishmen with whom Walker was intimate, wrote, immediately after his dear friend's death:

A truly great man. Purity and sincerity of purpose, strength of will combined with an exquisite gentleness of temper, made him one of the great forces for good in the world. England is very much the poorer by his death; and of course the loss to America is even nearer and deeper.

Mr. John C. Ropes, who, in the Boston years, was very close to General Walker, wrote to the latter's nephew, Robert Batcheller:

It was not difficult to recognize in him a grand simplicity of character, an absolute frankness and sincerity, a warm and honest heart, and a spirit of unhesitating and entire devotion to his work. With this rare combination of moral qualities, he possessed also rare intellectual gifts, specially that of comprehending enough of the scope and direction of the various branches of study at the Institute to be able to give to each its due proportion of attention, and to all the benefit of his untiring interest and energy. Added to all this was his unsurpassed faculty of administration, first shown in the army, and developed by successive experiences of increasing responsibility until he wielded and also augmented the resources and capacities of the Massachusetts Institute of Technology with a skill and success which commanded universal admiration. His contributions to political economy, and to the history of

the war, and of the first half century of American History, were most valuable works, and attest the wide range and vigor of his mind.

Professor Foxwell sent the following message from Cambridge:

It may be some satisfaction to you all to know the wide and profound respect felt for General Walker on this side of the Atlantic, both on personal and scientific grounds. He has won for himself a lasting place in the history of Social Science. As long as this interests men, your father will be known as the man who, above all others of his time, humanized Political Economy, and I can hardly imagine a greater service to mankind.

This is confirmed by a like appreciation from Sir William (then Professor) Ashley:

What I feel more particularly bound to say is that few in America seem to me to fully realize how great was General Walker's service to economic science. General Walker's book on Wages came at the time when economic thought in English-speaking countries had almost come to an end—when writers and teachers were content to go on repeating the worn-out doctrines of a previous generation. There has been a Renaissance of Economics in the last twenty years—due, of course, largely to the influence of Germany; but, as I look back, I feel more and more that the new impulse *first* came from Mr. Walker. It was he who woke men up and made them think again. And this fresh spring of interest and speculation seems to have been almost entirely, if not quite, spontaneous and original with him. We shall, I feel convinced, regard Mr. Walker as himself constituting a new and very considerable force in the intellectual history of this century.

And I want to say also, that tho' I am myself incompetent to form any very strong opinion on currency questions, I have admired the indomitable courage and good temper with which General Walker has resisted the attempt, even of journals like the Nation which knew better, to limit the freedom of scientific thought and

expression, and to put unpopular opinions under the ban. In maintaining the right of bimetallists to a respectful hearing, Mr. Walker was maintaining the freedom of expression of all serious scientific investigators.

Dr. Edward Everett Hale touches a more personal note:

I do like to remember the overflowing satisfaction and joy with which he always spoke of his family life. I think I did tell you of the proud, gratified, happy way with which he once spoke to me, even in some detail, of his children.

Colonel Carroll D. Wright said in his address of eulogy:

The greatest loss through his death is to the public. His mind and thought at the time were full of an undertaking of which every student of political and statistical and social science stands in need. He honored me with a syllabus of this work, which related to the economic conditions of the United States. His desire was to take up these conditions from the settlement of the country to the present time. No comprehensive work of this character is in existence, and General Walker, of all men, was the one to carry it to completion and success. He was to deliver a course of lectures in the Lowell Institute based on this work, and his hope was that ultimately it would grow into a book which should give clearly the facts relating to the social and economic condition of the people of our country. How well President Walker could have done this! What a great service he could have rendered to all the people by this undertaking!

No, General Walker's work was not finished. Those of us who stood shoulder to shoulder with comrades in action when they passed behind the curtain of the unknown can realize the full force of his exclamation that he wished to die in the midst of the conflict. This was the way he died, and we who mourn him mourn him as comrades in arms. He has built a many-sided monument, whose faces reveal the story of his greatness. He

has endeared himself by his personal attributes to a wide circle of friends, who will join in writing his epitaph. Let the public for which he toiled and in whose service he died erect the tomb, but let his friends, out of loving hearts, write his epitaph. But is Walker dead? His work will and must live on, as must the work of every good and great man. It cannot perish. His influence over the youth of this country, over the great body of his students, is immortal, and whether we erect tombs or write epitaphs, he needs nothing to establish his place in the hearts of a grateful people."

Dr. Hadley wrote, in the *Political Science Quarterly*:

He was a born leader of men. As soldier or as statistician, as college president or as writer of books, he called forth strong personal loyalty in all with whom he came in contact. He had a rare combination of courage and courtesy. He knew a vast number of facts, but he was always aiming to add something more to that knowledge. It is mere commonplace to say that no other man has had so wide an influence on the economic thought of America in the present generation.

Among the resolutions passed by the many organizations which owed so much to him, none is perhaps more appreciative and discriminating than that voted at a special meeting of the Faculty of the Institute. These fitting words speak the affectionate judgment of men who, most of them, had labored side by side with him for fifteen years:

. . . Among the many qualities which he possessed in eminent degree, we wish to record in particular:

His leadership;

His remarkable and unusual appreciation of departments of knowledge outside his own special and personal domain;

His delicate and keen perception of the proper relations of the various courses of instruction assembled under his charge;

His discriminating and forceful interpretation of the needs and thought of the larger world, gained by a wide range of public service;

His unfailing courtesy, his kind and conciliating spirit without sacrifice of candor or frank expression of strong conviction;

His generous recognition of the independent judgment and action of the Instructing Staff in the conduct and development of their individual work;

His powerful influence over students for good by an unconscious appeal direct to the qualities of manliness and honest endeavor which he illustrated by personal example, winning a devoted loyalty and confidence sacredly cherished by him.

In President Walker the Institute was honored wherever he was known, so wide was the recognition of his energy, his administrative ability and his contributions to history, education, statistics and political economy. No man need covet a nobler monument than the record of his life.

Brave and competent he was as a soldier, and deeply did he treasure the associations with men who, in his and their eager youth, passed through the flame of the Civil War. Zealous and effective he was as an administrator, in the Census Office, in the Indian Bureau, at the Philadelphia Exposition, not only, in all those services, rising to the full measure of his opportunity, but leaving a lasting impress upon public and quasi-public work. Nationally and internationally famous he was as an economist, virtually lifting that "dismal science" out of a real slough of despond and making it not merely human, but compassionately so. Conscientious he was above most men in fulfilling his duty as a citizen, and there was almost no public opportunity to be of use to which he did not make some high contribution. Successful he was as a teacher, leading, not driving, youth along the paths of learning. Fortunate

he was as a writer, possessing lucidity of expression, beauty of diction and the saving salt of humor, in expositions which, in other hands, would have been intolerably dry. Happiest of all, however, was he as a leader of young men, as their inspirer, as the builder of opportunity for them to make the most of themselves, as the wise and optimistic elder companion, opening up to youth great vistas of the beauty, richness and limitless opportunities of life.

His son, Francis, throws this sidelight upon that characteristic which, perhaps more than any other, made him a force in his dealings with his fellow-men. He writes:

When I was in Paris in 1908 I was invited to lunch by Émile Levasseur, the dean of the French economists at that time. After luncheon the famous statistician Bertillon called and my presence naturally led them to talk about my father. They united in praising his work as an economist and statistician, but Bertillon declared that what impressed him more than anything was his extraordinary personal charm.

Immediately after his untimely death, the alumni of the Institute of Technology began to raise a fund with which to erect, as a tangible monument of the intangible glory of his life, a Francis Amasa Walker Memorial. It was to stand conspicuous on the Institute campus, as a lasting inspiration to the thousands and thousands of young men who were and are debarred from the blessing of his personal presence, but who are the heirs in perpetuity of those fifteen crowning years.

For many excellent reasons, nearly twenty years had to elapse before that loving monument could even be begun; no sooner was it finished than the cataclysm of the World War turned it into military headquarters, in a conflict greater than any man in the days of the

Civil War could even have imagined; only during a student "generation" of four years has it been used for the purpose to which, a quarter of a century before, it had been dedicated. That purpose was to provide a beautiful building, close beside those devoted to study and work, which should furnish for all students at the Massachusetts Institute of Technology those things which Francis Walker was a pioneer in supplying, and which he deemed essential to the full, rounded life of worth-while men.

He was keen to have all the students take daily exercise, and for every one of them actively to share in some properly regulated sport. The Walker Memorial contains a well-equipped gymnasium, with compulsory exercise and measurings for the freshmen, with physical examination for all who enter games, with doctors, instructors and trainers. Close to the gymnasium are many tennis courts; an athletic field with fine running tracks and ample space for football and baseball is just behind; and the river, with a boat-house for rowing, flows in front.

President Walker believed profoundly in the value of companionship. His Memorial is a great students' club where the undergraduate, the alumnus, and the teacher may mingle freely in reading rooms lined with good books, in lounging rooms bright with open fires, in billiard room and bowling alley.

He was concerned that his growing and studying boys should be well fed and housed. In this building which bears his name is a huge and beautiful commons room, used also for dancing and other social meetings; a few yards from it are dormitories in which the residents are self-governing, as he would have had them be. In the not distant future, the Walker Memorial will be the dominant building in a large group of houses



THE WALKER MEMORIAL
Massachusetts Institute of Technology

sheltering all those of the student body who cannot live at home.

Walker never ceased to emphasize the educational value of training men early in self-reliance, in business methods, in working with others, and in handling men. This Memorial to him is a hive of "student activities," administrative, literary, musical, athletic; and it is all managed by undergraduates advised by committees chosen from the younger alumni.

Never did a "live" man such as General Walker have a more living and growing monument; never did a leader like him more fully deserve to have his personality thus humanly perpetuated. So long as the Institute of Technology shall stand, Walker will be a vital, inspiring and compelling presence upon its campus and within its walls. His spirit is immanent everywhere, in every act and in every undertaking of that institution which Rogers originally created and which Walker developed anew.

It is a spirit compounded of the essential dignity of youth, of the blessedness of hard and purposeful labor, of the spiritual strength that comes from working and playing and planning together, of the lasting satisfaction which grows out of mutual give and take, out of bending one's whole energies to making the most of one's self, in order that one may be of the utmost possible service to mankind. That spirit is the perpetual, growing legacy which Francis Amasa Walker left to the Institute. Through Technology men all over the world, using it as such a splendid heritage should be employed, the great school which Walker solidified, and upon which he put for all time the stamp of his genius and his character, has become one of the great molding forces of the world.

APPENDIX I

The following list was prepared by President Walker himself, and, although the dates are incomplete, it has seemed best to leave it just as it came from his hands:

COLLEGE SOCIETIES

Delta Kappa (Freshman), Amherst, 1855.

Delta Kappa Epsilon, 1856.

Alpha Sigma Phi (Sophomore), 1856. Withdrew on account of rowdyism in Society.

Phi Beta Kappa, 1860.

“Senator” of the Phi Beta Kappa, 1886 to —.

Athenean Society (Public, Literary), 1855.

Junior Orator at “Statement of Facts” (1858); and First President, Senior year (1859-60).

Editor, on behalf of Amherst College, of the Undergraduate Magazine, 1859-60.

COLLEGE DEGREES

A.B., Amherst, 1860.

A.M., Amherst, 1863.

A.M., Yale, 1873.

Ph.D., Amherst, 1875 (?)

LL.D., Amherst and Yale, (1882); Harvard, (1883); Columbia, (1887); St. Andrews, (1888); Dublin, (1892); Edinburgh, (1896).

Honorary Ph.D., University of Halle (200th Anniversary), 1894.

Trustee of Amherst College: — to — (Ten years, 2 terms).
Elected by Alumni.

Honorary Member of Book and Snake Society, Yale College.

President, Massachusetts Institute of Technology, 1881 to —.

President, Society of Arts, M. I. T., 1881 to —.

Trustee, Museum of Fine Arts, Boston, 1887 to —.

Member, ex officio, Art Commission of Boston, 1890 to —.

Asst. Editor, *Springfield Republican*, 1868-9.

Teacher of Latin and Greek, Williston Seminary, 1865-8.

Member, Mint Commission, Philadelphia, — and —.

Visitor, Naval Academy, Annapolis, 1889.

Resident Member, Massachusetts Society, 1893.

Prof. History and Political Economy, Sheffield Scientific School of Yale College, 1873-81.

Lecturer, Johns Hopkins University, 1877 and 1878.

Lecturer, Harvard University, 1882 and 1883, 1896.

Chairman, Topographical Survey Commission, Massachusetts, 1884 to 1892.

Chairman, Board of Trustees, Hospital for Dipsomaniacs and Inebriates, Massachusetts, 1889 to 1894.

Chairman, State Board of Managers, World's Fair, 1892-94.

Member, Park Commission of Boston, 1890 to 1896.

Member, State Railroad Commission of Connecticut (1878).
Never qualified.

Member, Board of Trustees, Boston Public Library, 1896 to —.

Member, State Board of Education, Connecticut (July 1), 1878, 1879, 1880, 1881.

Member, School Committee, New Haven, Sept. 17, 1877 to February 11, 1880.

Member, State Board of Education, Massachusetts, 1882 to 1890.

Member, School Committee, Boston, 1885, 1886, 1887.

Chief, Bureau of Statistics, Treasury Department, and Deputy Special Commissioner, U. S. Revenue, 1869-70.

United States Superintendent of Census, 1870-3.

United States Superintendent of Census, 1879-81.

United States Commissioner of Indian Affairs, 1871-2.

Chief, Bureau of Awards, Philadelphia Exhibition, 1876.

- Commissioner from U. S. to International Monetary Conference, Paris, 1878.
- Commissioner from U. S. to International Monetary Conference, Brussels, 1892. Declined.
- Trustee, Mt. Holyoke Female Seminary, 1876 to 1886.
- Visitor, Wellesley College, 1882—
- Member, N. E. Conference of Educational Workers.
- Member, American Academy of Political and Social Science (Phil.), 1890.
- Member, American Academy of Arts and Sciences (Boston), 1882 to —.
- Honorary Member, Appalachian Mountain Club.
- Life Member, Bostonian Society, 1892.
- Honorary Member, Manchester (England) Literary and Philosophical Society, 1892.
- Honorary Member, Mass. Charitable Mechanics' Association, 1883.
- Honorary Vice-President, Boston Children's Aid Society, 1893-4, 1894-5, 1896-7.
- Correspondent, Institute of France, Academy of Moral and Political Sciences, 1893.
- Corresponding Member, British Association for the Advancement of Science, November 2, 1894.
- One of the Commissioners, under the Act of the Legislature of Massachusetts, for dealing with the sewage of the Bridgewater Normal School.
- Member, National Academy of Sciences (U. S.), 1879.
- Vice-President, Academy of Sciences (U. S.), 1890 to —.
- A Vice-President, American Society for the Promotion of Profit Sharing, 1892—
- A Vice-President of the Society of Naval Architects and Marine Engineers, U. S., 1892 to —.
- Honorary Member, American Society of Mechanical Engineers, 18—.
- Member, American Antiquarian Society, October 21, 1876.
- Member, N. E. Historical-Genealogical Society, June 12, 1883.
- Member, American Social Science Association, 1877-9.

Member, Meteorological Society, (U. S.) — to —.
Life Member, American Historical Association, 1886.
Member, Mass. Historical Society, 1883.

Member, St. Botolph Club, Boston, 1882 to —.
President, St. Botolph Club, Boston, 1885 to 1895.
Member, Union Club, Boston, 1882 to 1885.
Member, Century Club of New York, 1876 to 1883.
Member, University Club of New York, June 4, 1879, to
March 31, 1885.

Member, Art Club of Boston, 1883 and 1884.

Honorary Member, Cobden Club, —.

Honorary Member, Royal Statistical Society of London, 1874.
Corresponding Member, Central Stat. Com. of Brussels, 1888.
Associate of the Statistical Society of Paris, —.

Honorary Member of the Royal Zoölogical Society of Dublin,
1892.

Honorary Member of the Carriage Makers' Assn. of the U. S.,
—.

Honorary Member, Dry Salters' Club of N. E., —.

Life Member of the Am. Economic Association, 1885.

President of the Am. Economic Association, 1885-92.

Member of the American Statistical Association, —.

President, American Statistical Association, — to —.

Member of the Commercial Club of Boston, — to —.

Member of the Mass. Reform Club, — to —.

Member of the Round Table Club (Dining Club, N. Y.),
— to —.

Member of the Round Table Club (Sociological, Boston),
— to 1892.

Honorary Member, Round Table Club (Sociological, Boston),
1892.

Member, Wednesday Evening Club of Boston, 1882 to —.

Member, Thursday Evening Club of Boston, 1881 to —.

Vice-President, Thursday Evening Club of Boston, 1891 to
—.

Member, Saturday Club (Dr. Holmes'), January 1, 1882, to
—.

- Member, Winter's Night Club, Boston, 1882 to —.
- Honorary Member, University Club, Boston, 1892 to —.
- Honorary Member, Webster Historical Society, August 14, 1882.
- Honorary Member, Manufacturers' Club of Philadelphia, 1896.
- Honorary Member, American Institute of Architects, 1896.
- Honorary Member, Chamber of Commerce, New Haven, Conn., 1896.
- Director, Public Art League of the United States.
[He was a member, also, of the Cosmos Club of Washington.]
- Honorary Member of the Am. Geographical Society, —.
- Member, Philosophical Society of Washington.
- Member of the Military Historical Society of Mass., 1882.
- President of the Military Historical Society of Mass., 1891 to —.
- Officier, Legion d'Honneur, France, 1889.
- Companion of the Order of Gustavus Vasa, of Sweden, 1876.
- Companion of the Order of Isabella the Catholic, of Spain, 1876.
- Corresponding Member, California Academy of Sciences, 1888.
- Sergeant Major, 15th Mass. Vols., Aug. to Sept., — 1861.
- 2nd Lieut. 15th Mass., — Declined.
- Capt. and A. A. Genl., U.S.V., Sept. 14, 1861, to August 10, 1862.
- Major and A.A.G., U.S.V., Aug. 11, 1862, to Dec. 31, 1862.
- Lt. Colonel, A.A.G., U.S.V., Hd. Qrs. Second Army Corps, Jan. 1, 1863, to Jan. 12, 1865.
- Brevet Colonel, U.S.V., August, 1864.
- Brevet Brig. Gen., U.S.V., March 13, 1865.
- Companion, Military Order of the Loyal Legion of the U. S., Feb. 1, 1882.
- Commander, Massachusetts Commandery, M.O.L.L.U.S., 1883 and 1884.

APPENDIX II

The following Bibliography was prepared for the American Statistical Association by its then Secretary, Professor Davis R. Dewey and published by them in June, 1897. It is republished by courtesy of the Association.

Articles marked with a † are republished, in whole or in part, in "Discussions in Economics and Statistics" (2 vols.), edited by Davis R. Dewey, Henry Holt & Co., 1899.

Articles marked with a * are republished, in whole or in part, in "Discussions in Education," edited by James P. Munroe, Henry Holt & Co., 1899.

BIBLIOGRAPHY OF THE WRITINGS AND REPORTED ADDRESSES OF FRANCIS A. WALKER

1857. More Thoughts on the Hard Times. (Signed W.) *National Era* (Washington), October 29.
1858. Mr. Carey and Protection. (Not signed.) *National Era* (Washington), January 21.
- Why Are We Not a Manufacturing People? (Signed F. A. W.) *National Era*, January 28.
- Mr. Carey on the History of Our Currency. (Signed F. A. W.) *National Era*, June 3.
- Mr. Carey's Letters.—Continued. (Signed F. A. W.) *National Era*, June 17.
- 1858-60. Contributions to the *Ichnolite*: a monthly magazine published by the students of Amherst College. Vols. 5, 6, 7, and 8.
1860. Contributions to *The Undergraduate*, New Haven. (After No. 1 the name of the magazine was changed to *University Quarterly*.) Vols. 1 and 2.
- †1868. On the Extinguishment of the National Debt. By "Poor Richard." *Bankers' Magazine*, July, vol. 23, pp. 20-34.

1868. Mr. Grote's Theory of Democracy. *Bibliotheca Sacra*, October, vol. 25, pp. 687-733.
1868. Many editorial articles in the *Springfield Republican*.
- 1868-69. Editor of the Monthly Reports of the Bureau of Statistics, Treasury Department, on the Commerce and Navigation of the United States. Series 1868-69, Nos. 21-29, pp. 287. Series 1869-70, Nos. 1-3, pp. 152.
1869. Is It a Gospel of Peace? *Lippincott's Magazine*, August, vol. 4, pp. 201-05.
1869. Annual Report of the Deputy Special Commissioner of the Revenue in charge of the Bureau of Statistics on the Commerce and Navigation of the United States for the Fiscal Year Ended June 30, 1868. (Dated August 20, 1869.) Part 1, pp. 729; Part 2, pp. 352; Part 3, pp. 144. Also *40th Congress, 3d Session. House Ex. Doc.*, vol. 16. Washington.
1869. The National Debt. *Lippincott's Magazine*, September, vol. 4, pp. 316-18.
1869. Annual Report of the Operations of the Bureau of Statistics to the Secretary of the Treasury for the Year 1869. (Dated October 13.) Pp. 6. Also *41st Congress, 2d Session. House Ex. Doc. No. 2*, vol. 4, pp. 337-42. Washington.
- †1869. American Industry in the Census. *Atlantic Monthly*, December, vol. 24, pp. 689-701.
- †1870. What to do with the Surplus. *Atlantic Monthly*, January, vol. 25, pp. 72-86.
1870. A Reply to Mr. Kennedy on the Errors of the Eighth Census. Letter in *Washington Chronicle*, January.
1870. An Oration at the Soldiers' Monument Dedication in North Brookfield, Mass., January 19. Pph., pp. 5-35. Also in *Springfield Republican*, January 20.
- †1870. The Report of the Special Commissioner. *Lippincott's Magazine*, February, vol. 5, pp. 223-30.
1870. The Legal Tender Act (With Henry Adams). *North American Review*, April, vol. 110, pp. 299-327. Also published in *Chapters of Erie and Other Essays*, by Charles F. Adams, Jr., and Henry Adams, pp. 302-32.

1870. Annual Report of the Deputy Special Commissioner of the Revenue in charge of the Bureau of Statistics on the Commerce and Navigation of the United States for the Fiscal Year Ended June 30, 1869. (Dated February 7, 1870.) Pp. viii. Part 1, pp. 227; Part 2, pp. 436; Part 3, pp. 94. Also *41st Congress, 2d Session. House Ex. Doc.*, vol. 15. Washington.
1870. Communication from the Superintendent of the Census submitting a draft of an Act amendatory of the Census Act of 1850. (Dated February 17.) *41st Congress, 2d Session. House Ex. Doc. No. 161*, pp. 3.
1870. A Statement of the Superintendent of the Census relating to the amount to be saved to the Treasury by dispensing with certain copies of the Census Returns required by the Act of 1850. (Dated April 6.) *41st Congress, 2d Session. Senate Ex. Doc. No. 79*, vol. 2, pp. 3. Washington.
1870. The Indian Problem. Review of Keim's Sheridan's Troopers on the Borders. *The Nation*, June 16, vol. 10, p. 389.
1871. Letter from the Superintendent of the Ninth Census addressed to Hon. W. B. Stokes relative to field-work performed by assistant marshals. (Dated January 14.) *41st Congress, 3d Session. House Mis. Doc. No. 31*, vol. 1, pp. 3.
1871. Report of the Superintendent of the Census on Estimates of Expenditures, etc. (Dated December 20, 1870.) *41st Congress, 3d Session. House Ex. Doc. No. 29*, vol. 7, pp. 4.
1871. Report of the Superintendent of the Census, December 26. Reprinted as a preface to vol. 1 on Population. Pp. xlviii. Washington.
1872. Letter from the Commissioner of Indian Affairs upon the action of the Department relating to the Kansas Indian Lands in the State of Kansas. (Dated December 2, 1871.) *42d Congress, 2d Session. Senate Mis. Doc. No. 10*, vol. 1, pp. 4. Washington.
1872. Letter from the Superintendent of the Census contain-

ing a report of the number of persons employed in obtaining the Ninth Census, time employed, amount paid to each, etc. (Dated December 6, 1871.) *42d Congress, 2d Session. Senate Ex. Doc. No. 4*, vol. 1, pp. 186.

1872. Reports of the Ninth Census, 1870. 3 quarto volumes and Compendium.

1872. Annual Report of the Commission of Indian Affairs to the Secretary of the Interior for the year 1872, November 1. Washington. Pp. 471. Also *42d Congress, 3d Session. House Ex. Doc. No. 1*, vol. 3, Part 5, pp. 389-847. Washington.

1873. The Indian Question. *North American Review*, April, vol. 116, pp. 329-88. Also republished in book *The Indian Question*.

1873. Some Results of the Census of 1870. Read before the Social Science Association, Boston, May 15. Published in *Journal of Social Science*, No. 5, pp. 71-97. Also printed separately.

1873. American Irish and American Germans. *Scribner's Monthly*, June, vol. 6, pp. 172-79.

1873. The Relations of Race and Nationality to Mortality in the United States. Read before the American Health Association. Published in *Reports and Papers of the American Public Health Association*, vol. 1, pp. 18-35. Also republished in *Statistical Atlas*, 1874.

†1873. Our Population in 1900. *Atlantic Monthly*, October, vol. 32, pp. 487-95.

1874. Report of the Superintendent of the Census, November 15, 1873. *43d Congress, 1st Session. House Ex. Doc. No. 1*, Part 5, vol. 4, pp. 757-63.

1874. Indian Citizenship. *International Review*, May-June, vol. 1, pp. 305-26. Also republished in book *The Indian Question*.

1874. Handbook of Statistics of the United States, compiled by M. C. Spaulding. Review in *The Nation*, May 14, vol. 18, p. 319.

- †1874. Mr. D. A. Wells and the Incidence of Taxation. Letter in *The Nation*, June 11, vol. 18, pp. 378-79.
- 1874. The Wages Question. Address before the Alexandria and Athenæ Societies of Amherst College, July 8. Published in *New York Times*, July 9; also *Springfield Republican*, July 9.
- 1874. Statistical Atlas of the United States based on the results of the Ninth Census, 1870, with contributions from many eminent men of science and several departments of the Government. Compiled with authority of Congress. (The Preface and Introduction, and of the *Memoirs and Discussions*, The Progress of the Nation, and Relations of Race and Nationality to Mortality in the United States, were written by General Walker.) Washington. Plates 54.
- 1874. Legislators and Legislation. Letter in *Providence Journal*.
- 1874. Wages and the Wages-Fund. Letter to the *Financier*, August 29. (In reply to Prof. A. L. Perry.)
- 1874. The Indian Question. Boston. Pp. 268.
- †1874. Cairnes's Political Economy. Review in *The Nation*, Nov. 12, vol. 19, p. 320.
- †1874. Our Foreign Population. *Chicago Advance*, November 12, December 10, and January 14, 1875.
- †1875. Report of the Superintendent of the Census, November 1, 1874. (Dated New Haven.) *43d Congress, 2d Session. House Ex. Doc. No. 1*, Part 5, vol. 6, pp. 721-30. Washington.
- †1875. The Wage-Fund Theory. *North American Review*, January, vol. 120, pp. 84-119.
- 1875. The Hard Times. Address before the New Haven Chamber of Commerce, February 23. Abstract in *Springfield Republican*, February 25.
- 1875. The First Century of the Republic: Growth and Distribution of Population. *Harper's Monthly*, August, vol. 51, pp. 391-414. Also published in book *First Century of the Republic*, pp. 211-37.

- †1875. Our Domestic Service. *Scribner's Monthly*, December, vol. 11, pp. 273-78.
1876. Maps (three) in *History of the United States*, by J. A. Doyle, New York.
1876. Census. *Encyclopædia Britannica* (9th edition), vol. 5, pp. 334-40.
1876. The Wages Question. A Treatise on Wages and the Wages Class. New York; London, 1877. Pp. iv, 428.
1877. The Philadelphia Exhibition. Part 1.—Mechanism and Administration. *International Review*, May-June, vol. 4, pp. 363-96.
- The Late World's Fair. Part 2.—The Display. July-August, vol. 4, pp. 497-513.
- The Late World's Fair. Part 3.—The Display. September-October, vol. 4, pp. 673-85.
- These are also published in *The World's Fair: Philadelphia, 1876; A Critical Account*, pp. 68; also in *A Critical View of the Great World's Fair*, pp. 68.
1878. The United States. *Johnson's Cyclopædia* (1st edition), vol. 4, Part 2, pp. 1029-56.
1878. United States Centennial Commission. International Exhibition, 1876. Editor of Reports and Awards. Philadelphia, 1878; also Washington, 1880. 6 vols.
1878. Money. (Lectures, Johns Hopkins University.) New York and London. Pp. xv, 550.
- †1878. Remarks addressed to the International Monetary Conference, Paris, August 22. *45th Congress, 3d Session. Senate Ex. Doc. 58*, pp. 73-79. Also printed separately.
1878. Report of the Superintendent of the Census, January 17. (Dated New Haven.) Pp. 21. Also *45th Congress, 3d Session. House Ex. Doc. No. 1*, Part 5, vol. 9, pp. 839-57. Washington.
1878. Interview of the Select Committees of the Senate of the United States and of the House of Representatives to make provision for taking the Tenth Census, with Prof. Francis A. Walker, Superintendent of the Cen-

- sus, December 16. *45th Congress, 3d Session. Senate Mis. Doc. No. 26*; pp. 20.
1879. The Monetary Conferences of 1867 and 1878, and the Future of Silver. *Princeton Review*, January, vol. 3, N. S., pp. 28-54.
1879. Money in Its Relations to Trade and Industry. (Lectures, Lowell Institute, Boston.) New York and London. Pp. iv, 339.
- †1879. The Present Standing of Political Economy. *Sunday Afternoon*, May, vol. 3, pp. 432-41.
1879. Report of the Superintendent of the Census, November 15. Pp. 16. Also *46th Congress, 2d Session. House Ex. Doc. No. 1*, Part 5, vol. 10, pp. 307-20. Washington.
- 1880-82. Census Bulletins, Nos. 1-305. Also Extra Census Bulletins.
1880. The Principles of Taxation. *Princeton Review*, July, vol. 6, N. S., pp. 92-114.
- 1881-88. Reports of the Tenth Census, 1880. 22 quarto volumes and Compendium (Parts 1 and 2). Washington.
1881. Report of the Superintendent of the Census, December 1, 1880. *46th Congress, 3d Session. House Ex. Doc. No. 1*, Part 5, vol. 10, pp. 423-26. Washington.
1881. Letter to Secretary of Interior giving complete returns of the population of each State and Territory on the 1st day of June, 1880. Letter of January 17 to Hon. S. S. Cox, pp. 5-18. The Alabama Paradox.—Letter to Hon. S. S. Cox, January 17, pp. 19-20. The Moiety Question.—Letter to Hon. S. S. Cox, January 15, pp. 20-24. *46th Congress, 3d Session. House Ex. Doc. No. 65*, vol. 18, pp. 1-2. (The Moiety Question reprinted in 1891.)
1881. Letter from the Superintendent of the Census respecting the execution of the law for taking the Tenth and subsequent censuses, with accompanying schedules. (Dated January 25.) *46th Congress, 3d Session. Senate Ex. Doc. No. 28*, vol. 1, pp. 35.
1881. Report of the Superintendent of the Census, November

- 1, pp. 65. Also *47th Congress, 1st Session. House Ex. Doc. No. 1*, Part 5, vol. 10, pp. 665-727. Washington.
- †1882. American Agriculture. *Princeton Review*, May, vol. 9, N. S., pp. 249-64.
1882. The Growth of the United States. *The Century*, October, vol. 24, pp. 920-26.
1883. Remarks on the Character of President W. B. Rogers, October 12, before the Society of Arts. Published in *Proceedings of the Society of Arts*, 1882-83, pp. 5-7. Also printed separately.
- †1883. American Manufactures. *Princeton Review*, March, vol. 11, N. S., pp. 213-23.
1883. Remarks on Giving the Name of William B. Rogers to the Main Building, Massachusetts Institute of Technology, May 29. (Printed for private distribution.)
1883. Political Economy. New York and London. Pp. iv, 490.
1883. The Unarmed Nation. Our Duty in the Cause of International Peace. Address delivered at Smith College, Northampton, June 20. Published in the *Springfield Republican*, June 21.
1883. Henry George's Social Fallacies. *North American Review*, August, vol. 137, pp. 147-57.
1883. Land and Its Rent. Boston and London. Pp. vi, 232.
1884. President's Report, Massachusetts Institute of Technology, December 12, 1883. Boston. Pp. 31.
1884. The Second and Third Army Corps. Letter in *The Nation*, March 27, vol. 38, p. 274.
1884. Political Economy. (Briefer Course, abridged from work of 1883.) New York. Also republished under the title *A Brief Political Economy*. London, 1886. Pp. iv, 415.
- *1884. Industrial Education. Read before the American Social Science Association, September 9. Published in *Journal of Social Science*, No. 19, pp. 117-31.
1884. Public Revenue. *Lalor's Cyclopædia of Political Science, Political Economy, and United States History*,

- vol. 3, pp. 618-29; *The Wage Fund*, *ditto*, pp. 1074-77; *Wages*, *ditto*, pp. 1077-85.
1884. President's Report, Massachusetts Institute of Technology, December 10. Boston. Pp. 20.
1885. Letter to the Secretary of the Interior, February 24, regarding the Accounts of Richard Joseph. *49th Congress, 1st Session. House Ex. Doc. No. 127*, pp. 5-7.
1885. Shall Silver be Demonetized? *North American Review*, June, vol. 140, pp. 489-92.
1885. President's Report, Massachusetts Institute of Technology, December 9. Boston. Pp. 24.
1886. Gettysburg. Lecture in Lowell Institute Course, Boston, March 4. Published in *Boston Herald*, March 5.
1886. What Industry, if Any, Can Profitably be Introduced into Country Schools. *Science*, April 15, vol. 9, p. 365.
1886. History of the Second Army Corps in the Army of the Potomac. New York. Pp. xiv, 737. Second edition, 1891, pp. xx, 737.
1886. The Military Character and Services of Major-General W. S. Hancock. Address delivered at the meeting of the Vermont Officers' Reunion Society, Montpelier, Vt., November 3. Published in *Free Press* (Burlington), November 5. Read (revised and corrected) before the Military Historical Society of Massachusetts, February 13, 1888. Published in the *Papers of the Military Historical Society of Massachusetts*, vol. 10, pp. 49-67. Under the title Hancock in the War of the Rebellion, read before the New York Commandery of the Loyal Legion, February 4, 1891. Published in *Personal Recollections of the War of the Rebellion*. (New York Commandery of the Loyal Legion.) Vol. 1 (1891), pp. 349-64. Published in the *Brooklyn Standard Union*, February 7 and 14, 1891.
1886. Geography of New England: A Supplement to *Maury's Manual of Geography*. Pp. 24.
1886. Sumner at Fair Oaks. *National Tribune* (Washington), October 14. Couch at Fredericksburg, *ditto*, October

21. Hancock at Gettysburg, *ditto*, October 28. Warren at Bristoe, *ditto*, November 4.
1886. President's Report, Massachusetts Institute of Technology, December 8. Boston. Pp. 32.
- †1887. Socialism. *Scribner's Magazine*, January, vol. 1, pp. 107-19. Also published in *Phillips Exeter Lectures* (1885-86). Boston, 1887, pp. 47-78.
- *1887. A Plea for Industrial Education in the Public Schools. Address to the Conference of Associated Charities of the City of Boston, February 10. Pph., pp. 34.
1887. General Hancock and the Artillery at Gettysburg. *The Century*, March, vol. 33, p. 803. Also published in *Battles and Leaders of the Civil War* (The Century Co.), vol. 3, pp. 385-86.
- †1887. The Source of Business Profits. Read before the Society of Arts, March 24. Published in *Proceedings of the Society of Arts*, 1886-87, pp. 76-90. Also published, with additions and alterations, in the *Quarterly Journal of Economics*, April, vol. 1, pp. 265-88. Printed separately, Pph., pp. 26.
1887. Wolseley on Lee. Letters in *The Nation*, March 31, vol. 44, p. 269; April 28, pp. 362-63.
- *1887. Arithmetic in Primary and Grammar Schools. Remarks before the School Committee of Boston, April 12. Published as *School Document No. 9*, 1887. Pp. 20. Also Pph., pp. 29.
1887. Sketch of the Life of Amasa Walker. In *History of North Brookfield, Mass.* The same expanded in the *New England Historical and Genealogical Register*, April, 1888, vol. 42, pp. 133-41. Also printed separately, Pph., pp. 14.
1887. Meade at Gettysburg. *Battles and Leaders of the Civil War* (The Century Co.), vol. 3, pp. 406-12.
1887. Memoir of William Barton Rogers, 1804-82. Read before the National Academy of Sciences, April. Published in *Biographical Memoirs of National Academy*, vol. 3, 1895, pp. 1-13. Also Pph., pp. 13.
- †1887. The Socialists. *The Forum*, May, vol. 3, pp. 230-42.

1887. *Political Economy*. (Revised and enlarged.) New York and London. Pp. vi, 537.
1887. Reply (before the Boston School Board) to Supervisor Peterson on the Study of Arithmetic in Grammar Schools, June 14. Published in *Popular Educator*, September, vol. 3, pp. 209-11.
1887. *The Labor Problem of Today*. Address delivered before the Alumni Association of Lehigh University, June 22. Printed by the Association. New York. pp. 29.
- *1887. *Manual Education in Urban Communities*. Address before the National Educational Association, Chicago, July 15. Published in *Addresses and Proceedings of the National Educational Association, 1887*, pp. 196-205.
- †1887. *What Shall We Tell the Working Classes?* *Scribner's Magazine*, November, vol. 2, pp. 619-27.
- *1887. *Arithmetic in the Boston Schools*. Read before the Grammar School Section of the Massachusetts Teachers' Association at Boston, November 25. Published in *The Academy*, Syracuse, N. Y., January, 1888, vol. 2, pp. 433-44. Also printed separately.
1887. *President's Report, Massachusetts Institute of Technology*, December 14, 1887. Boston. Pp. 39.
1888. *United States: Part III.—Political Geography and Statistics*. *Encyclopædia Britannica* (9th edition), vol. 23, pp. 818-29.
1888. *Remarks at the Opening of the Sixteenth Triennial Exhibition of the Massachusetts Charitable Mechanics Association*, September 27, 1887. Published in *Proceedings of the Annual Meeting of January 18, 1888*, p. 56.
- †1888. *The Eleventh Census of the United States*. *Quarterly Journal of Economics*, January, vol. 2, pp. 135-61. Also printed separately, Pph., pp. 27.
1888. *The Military Character and Services of Major-General Hancock*. (See 1886.)
- †1888. *The Bases of Taxation*. *Political Science Quarterly*, March, vol. 3, pp. 1-16.
- †1888. *A Reply to Mr. Macvane: On the Source of Business*

- Profits. *Quarterly Journal of Economics*, April, vol. 2, pp. 263-96. Also printed separately; Pph., pp. 36.
1888. Economy of Food. *Science*, May 18, vol. 11, pp. 233-34.
1888. Efforts of the Manual Laboring Class to Better Their Condition. Address as President, American Economic Association, May 21. *Publications of the American Economic Association*, vol. 3, pp. 7-26.
1888. The Intermediate Task.—Protection and American Agriculture. *The National Revenue. A Collection of Papers by American Economists*. Edited by Albert Shaw. Pp. 135-151. (Pp. 137-151 reprinted from the revised edition of *Political Economy*. New York, 1887.)
- †1888. The Knights of Labor. *Princeton Review*, September, vol. 6, N. S., pp. 196-209.
1888. President's Report, Massachusetts Institute of Technology, December 12. Boston. Pp. 50.
1888. Philip Henry Sheridan. Eulogy delivered before the City Government of Boston, December 18. Published in *Sheridan Memorial*, pp. 41-117; *Boston Herald*, December 19. Also printed separately.
- †1889. Recent Progress of Political Economy in the United States. Address as President, American Economic Association, December 27, 1888. *Publications of the American Economic Association*, vol. 4, pp. 17-40.
1889. Memoir of E. B. Elliott. *Proceedings of the American Academy of Arts and Sciences*, vol. 24, pp. 447-52.
1889. Census. *Johnson's Cyclopædia* (Revised, 1889-90), vol. 1, pp. 782-88 (New edition, 1895); vol. 2, pp. 152-59.
1889. Ventilating Public Buildings. Letter in *Boston Post*, January 22.
1889. Can Morality be Taught in the Public Schools without Sectarianism? *Christian Register*, January 31.
- †1889. The Laborer and His Employer. Lecture delivered at Cornell University, February. Published in *Scientific American*, June 1, Supplement No. 700.
- †1889. The Growth of the Nation in Numbers, Territory, and the Elements of Industrial Power. Oration before the

- Phi Beta Kappa, Brown University, June 18. Published in *Providence Journal*, June 19.
1889. Indian Schools. Letter to General Armstrong in *Southern Workman*, October, 1889; quoted in *Proceedings of Seventh Annual Meeting, Lake Mohonk Conference*, pp. 36-37.
1889. First Lessons in Political Economy. New York; London, 1890. Pp. viii, 323.
1889. The Nation's Celebration. *The Independent* (New York), September 26.
1889. Address before the Newton Tariff Reform Club, November 20. Abstract in *Springfield Republican*, November 22.
1889. Industrial Training. A Talk to the Commercial Club of Providence, November 17. Reported in *Providence Journal*.
1889. Civil Service Reform. Thanksgiving-Day Discourse. *The Independent* (New York), November 28.
1890. Annual Report of the President, Massachusetts Institute of Technology, December 11, 1889. Boston. Pp. 48.
1890. The Nation That Was Saved. Oration at Reunion of New Hampshire Soldiers, Weirs, August 29, 1889. Printed in *Veteran's Advocate*, Concord, N. H., January, vol. 7, pp. 2-3.
- *1890. The Study of Statistics in Colleges and Technical Schools. *Technology Quarterly*, February, vol. 3, pp. 1-8.
- †1890. Mr. Bellamy and the New Nationalist Party. *Atlantic Monthly*, February, vol. 65, pp. 248-62. (Address delivered before the Economic Association of Providence, December, 1889. Reported in *Providence Journal*.) Also printed separately, Pph., pp. 15.
1890. America's Fourth Centenary. *The Forum*, February, vol. 8, pp. 612-21.
- †1890. The Eight-Hour-Law Agitation. Address before the Young Men's Christian Union, Boston, March 1. Published in *Boston Journal*, March 3.

- †1890. Protection and Protectionists. *Quarterly Journal of Economics*, April, vol. 4, pp. 245-75.
1890. Address at the Memorial Exercises of the Thomas G. Stevenson Post, G. A. R., May 30. Published in *Boston Journal*, May 31.
1890. The Eight-Hour Law Agitation. *Atlantic Monthly*, June, vol. 65, pp. 800-10. Also printed separately, Pph., pp. 22.
1890. The Great Review. Oration before the Society of the Army of the Potomac, Twenty-first Annual Reunion, Portland, Maine, July 3. Published in *Report of the Proceedings of the Society of the Army of the Potomac*, 1890, pp. 18-32; also in *Boston Journal*, July 4.
1890. Address on Presenting Diplomas of Graduation, June 3. *Boston Journal*, June 4; also *Technology Quarterly*, August, vol. 3, p. 202.
- †1890. Statistics of the Colored Race in the United States. *Publications of the American Statistical Association*, September-December, vol. 2 (Nos. 11-12), pp. 91-106.
- †1890. Democracy and Wealth. *The Forum*, November, vol. 10, pp. 243-55.
1890. The Changes of the Year. *Technology Quarterly*, November, vol. 3, pp. 281-86.
1890. Why Students Leave School. Letter in *Boston Herald*, December 14.
- †1890. The Tide of Economic Thought. Address as President of the American Economic Association, December 26. *Publications of the American Economic Association*, vol. 6 (1891), pp. 15-38. Also printed separately, Pph., pp. 24.
1891. Annual Report of the President, Massachusetts Institute of Technology, December 10, 1890. Boston. Pp. 52.
1891. Panic from Coinage. Evidence before the Committee on Coinage, January 29. *51st Congress, 2d Session. House Report 3967, Part 3. Reports and Hearings*, pp. 54-58.
1891. Against Free Coinage of Silver. Speech in Faneuil

Hall, January 20. Published in *Boston Journal*, January 21.

- 1891. Hancock in the War of the Rebellion. (See 1886.)
- 1891. Testimony before Committee of New York Legislature, March 7, regarding Eleventh Census of the United States in New York. Reported in *New York Times*, March 8.
- 1891. Charles Devens. An address delivered before the Commandery of the State of Massachusetts Military Order of the Loyal Legion, March 19. Published in *Circular No. 7, Series 1891*, March 20; *Boston Journal*, March 20; also Pph., pp. 20.
- 1891. Usefulness of a Five-Year Course. Letter in *The Tech*, April 9, vol. 10, pp. 177-79.
- †1891. The United States Census. *The Forum*, May, vol. 11, pp. 258-67.
- †1891. The Great Count of 1890. *The Forum*, June, vol. 11, pp. 406-18.
- 1891. The Place of Schools of Technology in Education. Remarks at the Graduating Exercises of the Worcester Polytechnic Institute, June 18. Published in *W. P. I.*, Worcester, July 15, pp. 79-80.
- †1891. A Reply to the Article: The Economists and the Public. Letter in *Evening Post* (New York), June 27.
- *1891. The Place of Scientific and Technical Schools in American Education. Address delivered at the 29th University Convocation of the State of New York, Albany, July 8. Published in *Regents' Bulletin*, No. 8, January, 1893, pp. 375-88; also the larger portion in *Technology Quarterly*, December, vol. 4, pp. 293-303; and in the *Educational Review* under the title The Place of Schools of Technology in American Education, October, vol. 2, pp. 209-19.
- †1891. The Colored Race in the United States. *The Forum*, July, vol. 11, pp. 501-09.
- †1891. The Doctrine of Rent and the Residual Claimant Theory of Wages. *Quarterly Journal of Economics*, July, vol. 5, pp. 417-37.

- †1891. Immigration and Degradation. *The Forum*, August, vol. 11, pp. 634-44.
1892. Annual Report of the President, Massachusetts Institute of Technology, December 9, 1891. Boston. Pp. 56.
1892. Growth and Distribution of Population in the United States. *The Chautauquan*, March, vol. 14, pp. 656-58.
- †1892. Dr. Böehm-Bawerk's Theory of Interest. *Quarterly Journal of Economics*, July, vol. 6, pp. 399-416.
- †1892. Immigration. *Yale Review*, August, vol. 1, pp. 125-45.
- *1892. Normal Training in Women's Colleges. *Educational Review*, November, vol. 4, pp. 328-38.
1893. Annual Report of the President, Massachusetts Institute of Technology, December 14, 1892. Boston. Pp. 65.
1893. Massachusetts Institute of Technology.—Length of Course.—Degrees at Scientific Schools. Letter in *Engineering News*, January 26, vol. 29, pp. 90-91; February 2, p. 108.
1893. Scientific and Technical Schools. Address delivered at opening of Engineering Building, Pennsylvania State College, February 22. Published in *Proceedings at the Formal Opening of the Engineering Building, Pennsylvania State College*, pp. 23-30; also in *Pennsylvania School Journal*, April, vol. 41, pp. 435-38.
1893. Remarks on the Dedication of the New Science and Engineering Buildings of McGill University, Montreal, February 24. Published in *Technology Quarterly*, April, vol. 6, pp. 65-68. Also printed separately.
- †1893. The Free Coinage of Silver. *Journal of Political Economy*, March, vol. 1, pp. 163-78.
1893. Sickles at Gettysburg. Letter in *The Nation*, May 11, vol. 56, p. 346.
- *1893. College Athletics. Address before the Phi Beta Kappa Society, Alpha of Massachusetts, at Cambridge, June 29. Published in *Boston Transcript*, June 30; *Harvard Graduates' Magazine*, September, vol. 2, pp. 1-18; *Technology Quarterly*, July, vol. 6, pp. 116-31. Also printed separately, Pph., pp. 16.
- *1893. How Far Do the Technological Schools, as They Are at

Present Organized, Accomplish the Training of Men for the Scientific Professions, and How Far and for What Reasons Do They Fail to Accomplish Their Primary Purpose? Address on opening Congress of Technological Instruction, Chicago, July 26. Published in *Addresses and Proceedings of International Congress of Education, Chicago*, pp. 528-34.

- *1893. The Technical School and the University. A Reply to Prof. Shaler. *Atlantic Monthly*, September, vol. 72, pp. 390-94. *Technology Quarterly*, October, vol. 6, pp. 223-29. Also printed separately, Pph., pp. 7.
- †1893. Address on Taking the Chair as *Président-Adjoint*, International Statistical Institute, Chicago, September 11. Published in *Bulletin de l'Institut International de Statistique*, Tome viii, 1895, pp. xxxvi-ix.
- †1893. Value of Money. Paper read before the American Economic Association, September 13. Published in *Quarterly Journal of Economics*, October, vol. 8, pp. 62-76. Also printed separately, Pph., pp. 17.
- 1893. Annual Report of the President, Massachusetts Institute of Technology, December 13. Boston. Pp. 61.
- 1894. International Bimetallism. Address delivered before the Liberal Club of Buffalo, N. Y., February 16. Published in book *The Liberal Club*, pp. 107-38.
- 1894. [Neo-Bimetallism in Boston.] Letter in *Evening Post* (New York), February 24.
- 1894. Lord Nelson and the Victory. *Southern Mag.*, Feb.
- 1894. State House Reconstruction. Remarks at a Hearing at the State House, March 1. Published in *Boston Transcript*, March 6. Also in Pph. *Save the State House*, pp. 20-24.
- 1894. Bimetallism: A Tract for the Times. Pph., pp. 24.
- 1894. Bimetallism. Address delivered before the Boston Boot and Shoe Club, March 28. Published in *The Shoe and Leather Reporter*, April 5. Also printed separately, Pph., pp. 15.
- 1894. Par of Exchange. Letter in *Evening Post* (New York), April 3.

1894. General Hancock. (Great Commanders Series.) New York. Pp. vi, 332.
- *1894. How May Closer Articulation Between the Secondary Schools and Higher Institutions be Secured? Discussion of the question at the Ninth Annual Meeting of the New England Association of Colleges and Preparatory Schools, October 12. Published in *Addresses and Proceedings of the Ninth Annual Meeting of the New England Association of Colleges and Preparatory Schools*, pp. 22-25. Also published in *School Review*, December, vol. 2, pp. 612-15.
- *1894. The Relation of Professional and Technical to General Education. *Educational Review*, December, vol. 8, pp. 417-33.
1894. Annual Report of the President, Massachusetts Institute of Technology, December 12. Boston. Pp. 86.
1895. Bimetallism. Address delivered before the Springfield Board of Trade, March 27. Published in *Springfield Union*, March 28.
1895. The Making of the Nation. (The American History Series.) New York. Pp. xv, 314.
1895. Reply to Criticism on Springfield Address. Letter in *Evening Post* (New York), April 5.
1895. The Restriction of Immigration. Address delivered at Cornell University, April 12. Published in the *Transactions of the Association of Civil Engineers of Cornell University, 1895*, pp. 73-85.
1895. The Growth of American Nationality. *The Forum*, June, vol. 19, pp. 385-400.
1895. Obituary: Samuel Dana Horton. *The Economic Journal*, June, vol. 5, pp. 304-06.
- *1895. The Relation of Manual Training to Certain Mental Defects. Paper read at the Sixty-fifth Annual Meeting of the American Institute of Instruction, July 9. Published in *Journal of Proceedings of American Institute of Instruction, 1895*, pp. 23-32. Also printed separately, Pph., pp. 12.

- †1895. The Quantity-Theory of Money. *Quarterly Journal of Economics*, July, vol. 9, pp. 372-79.
- 1895. The Argument for Bimetallism. *The Independent* (New York), October 10.
- 1895. "Severe Work at the Tech." Letter in *Boston Herald*, November 20.
- 1895. The Restriction of Immigration. Address delivered before the Manufacturers' Club of Philadelphia, December 16. Published in *Manufacturers' Record*, December 21.
- 1896. Annual Report of the President, Massachusetts Institute of Technology, December 11, 1895. Boston. Pp. 74.
- 1896. Reply to General Greeley Curtis regarding General Hooker. Letter in *Boston Herald*, February 5.
- 1896. Bimetallism in the United States. *The Bimetallist* (London), February, vol. 2, pp. 38-41.
- 1896. Currency and Prices. Letter in *The Economist* (London), April 18, vol. 54, pp. 491-92. Also published under the title A Criticism of the Right Hon. G. J. Shaw-Lefevre, in *The Bimetallist* (London), May, vol. 2, pp. 97-98.
- †1896. The Relation of Changes in the Volume of the Currency to Prosperity. Paper read before the American Economic Association, December 28, 1895. Published in *Economic Studies* (American Economic Association), April, vol. 1, pp. 23-45.
- 1896. Letter to Senator Teller on the Silver Question, April 13. Quoted as an appendix to Senator Teller's speech in the Senate, April 29.
- 1896. On Teaching English Composition in Colleges. Boston (Massachusetts Institute of Technology). Pph., pp. 5.
- 1896. Something About the Par of Exchange. Letter in *Evening Post* (New York), May 29.
- 1896. Money. *Dictionary of Political Economy* (Edited by R. H. Inglis Palgrave), vol. 2, pp. 787-96. Quantity-Theory of Money. Published in vol. 3.
- 1896. Henry Saltonstall. *Technique*, 1897, pp. 32-34.
- †1896. Restriction of Immigration. *Atlantic Monthly*, June, vol. 77, pp. 822-29.

1896. Address before the British Bimetallic League, London, July 13. Published in *The Bimetallist* (London), July, vol. 2, pp. 139-45. Also published in *The National Review*, under the title The Monetary Situation and the United States, August, vol. 27, pp. 783-92.
1896. International Bimetallism. (Lectures delivered at Harvard University.) New York and London. Pp. iv, 297.
- †1896. International Bimetallism: A Rejoinder. *Yale Review*, November, vol. 5, pp. 303-12.
- †1896. International Bimetallism. Address delivered before the Schoolmasters' Club of Massachusetts, November 7. Published in the *Boston Herald*, November 7; also in *The Bimetallist* (London), December, vol. 2, pp. 218-29.
- *1896. Technical Education. Address delivered at the Dedication of the Thomas S. Clarkson Memorial School of Technology, Potsdam, N. Y., November 30.
1897. Annual Report of the President, Massachusetts Institute of Technology, December 9, 1896. Boston. Pp. 80.
- †1897. Remarks at the First Meeting of the Washington Members of the American Statistical Association, Washington, December 31, 1896. *Publications of the American Statistical Association*, March, vol. 5 (No. 37), pp. 180-87.
1897. General Gibbon in the Second Corps. Paper read before the New York Commandery of the Loyal Legion, May 6, 1896. Published in *Personal Recollections of the War of the Rebellion*. New York Commandery of the Loyal Legion. Vol. 2.
- †1897. The Causes of Poverty. *The Century*, vol. 55, pp. 210-16.

In addition to the above there appear, in "Discussions in Economics and Statistics," the following articles taken from mss.:

Savings Banks. Vol. I., pp. 127-56.

Women in Industry. Vol. II., pp. 241-44.

Is Socialism Dangerous? Vol. II., pp. 291-98.

Private Property. Vol. II., pp. 405-13.

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